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ANNUAL REPORT

OF THE

BUREAU OF HEALTH

FOR THE

PHILIPPINE ISLANDS

VICTOR G. HEISER
DIRECTOR OF HEALTH

JULY 1, 1905—JUNE 30, 1906

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BUREAU OF HEALTH,
Manila, P. I., August 16, 1906.

SIR: Pursuant to the instructions issued by the honorable the Secretary of the Interior for the Philippine Islands, I have the honor to submit herewith the following report of the operations of the Board of Health for the Philippine Islands from July 1, 1905, to October 31, 1905, and of the Bureau of Health from November 1, 1905, to June 30, 1906, this being a complete report of the health work in the Islands for the year ended June 30, 1906, and the seventh annual report of this division of the Philippine Government.

The comparative freedom from disease which residents of the Philippine Islands who are willing to follow the few simple rules recommended by the Bureau of Health have enjoyed during the year, although constantly exposed to highly communicable diseases, the mortality of which is exceedingly great, is another most convincing proof of the value of health organizations when health legislation places them in position to carry out modern scientific sanitary methods. In other words, for an expenditure of 5 centavos (2½ cents, United States currency) per capita per annum, based upon a population of 6,500,000, over 1,000,000 persons have been protected against smallpox, and of over 1,600,000 living in the provinces exposed to cholera, only 4,143 contracted the disease, which means that only dozens were seized where hundreds were attacked before.

Quinine was distributed free to persons living in malarious districts and good health was enjoyed by thousands where sickness and death were ever present in the past. Many water courses from which town water supplies are obtained were protected from pollution, thus adding many more thousands to those enjoying good health instead of being afflicted with water-borne diseases. Vigorous measures were enforced to enable the public to obtain good meat. The few cases of measles and diphtheria which came to these shores were carefully isolated to prevent the spread of the infection, and thus the Philippines were protected from at least two diseases which have not as yet gained a foothold. In order to prevent that dreadful scourge of modern civilization—typhoid fever—from establishing itself in the Philippine Islands, all cases of this disease were searched for and measures taken to disinfect discharges from such patients in order that there might be no spread; and in many, many other ways measures were taken which prevented persons from contracting disease, and thus the work of the Bureau of Health has added very much to the sum total of happiness which was enjoyed by the people of these Islands, as well as contributing to the economic wealth of the country by increasing the producing power of the people.

Each succeeding year of experience in health work shows very clearly that the white man's chances of contracting disease in the Philippine Islands are less than they are in the United States. During the year the death rate among Americans was only 9.34 per thousand, and even if several per cent is added for those who left here sick and subsequently died in the United States, the death rate will still not be higher than in the most salubrious communities in the United States.

To keep the cholera from becoming epidemic, and to confine it to as small a territory as possible, has required the best efforts of the officers and employees of the Bureau of Health during the year. In almost every instance where it was impossible to institute measures against its suppression, the disease assumed threatening proportions, and it was only with the greatest difficulty in those instances that it was brought under control. While it is satisfactory to report that cholera was confined to narrower limits, and less persons affected thereby than has been the case previously in the Philippine Islands, yet it is very discouraging for a health officer to be compelled to devote the greater portion of his efforts to keeping a disease in check, which, even if successful, does nothing to improve the health conditions in the Islands in a permanent way. In other words, if the energy which was been expended in combating cholera could have been devoted during the year to making permanent sanitary improvements which would make such diseases as cholera impossible, a long step in advance would have been taken instead of our energy being dissipated and nothing permanent being accomplished. Yet, in spite of the fact that so much time was required in combating cholera, more work was accomplished than in any year since the Bureau of Health has been established, more persons vaccinated, more sick were treated, more permanent sanitary improvements were made, more medicine was distributed, more nuisances abated, more free dispensaries were operated, and less plague, less smallpox, and less beriberi in public institutions occurred than has heretofore been the case in any one year, and, what is also well worth mentioning, is the fact that these results were obtained with smaller appropriations than have been expended yearly during the preceding four years.

HISTORICAL.

The first Board of Health in the Philippine Islands, after American occupation, was assembled in compliance with General Orders, No. 16, dated headquarters of the Department of the Pacific, Eighth Army Corps, Manila, P. I., September 10, 1898. This order directed Dr. Frank

S. Bourns, major and chief surgeon, United States Volunteers, and Dr. C. E. McQuesten, acting assistant surgeon, United States Army, to report to the provost-marshal-general for duty in connection with the organization of the Board of Health for the city of Manila.

The board was formally organized by General Orders, No. 15, dated headquarters provost-marshal-general, Manila, P. I., September 29, 1898, and was composed of Dr. Frank S. Bourns, president; Dr. C. L. Mullins, assistant surgeon, United States Volunteers, and Dr. C. E. McQuesten, acting assistant surgeon, United States Army, as active members, and Dr. T. H. Pardo de Tavera and Dr. Aristón Bautista Lim, both of Manila, as honorary members.

The city was divided into ten districts and a municipal physician appointed for each. Eight municipal midwives were also appointed, and a physician for San Lazaro Hospital, all by the same order.

On October 8, 1898, the first rules and regulations of the Board of Health were published.

One of the most important problems that the newly organized board was called upon to deal with was that of an epidemic of smallpox. The old Spanish vaccine farm was reëstablished and a corps of city vaccinators put to work, and by the end of the fiscal year 80,000 people in the city of Manila had been vaccinated, 82 per cent of the vaccinations being successful. In the meantime a smallpox hospital, a leper hospital, and a hospital for the treatment of venereal diseases had been established and a veterinary corps organized.

This provisional Board of Health continued in existence until August 26, 1899, when the first Commissioner of Public Health, Dr. Guy L. Edie, was appointed. The reorganized board added a bacteriological department to the municipal laboratory which had been conducted by the former Board of Health, and established a plague hospital, and instituted the registration by the Board of Health of births, marriages, and deaths which heretofore had been in charge of the parochial priests. A municipal dispensary was organized and the work of protecting the city against smallpox, so successfully inaugurated by Major Bourns, was continued.

After the advent of the Civil Commission the passage of Act No. 62 gave the provost-marshal-general the right to promulgate ordinances for the city of Manila, and matters which had heretofore been governed by rules and regulations were embodied in ordinances and enforced by military authority. The first health ordinance was promulgated on April 6, 1901, and is still in force with the exception of one or two provisions which have been repealed by other ordinances. This ordinance, which included nearly every phase of municipal sanitation, has been the foundation of all subsequent ordinances and of the proposed Sanitary Code. It provided, among other things, that every physician called to visit or examine any case of infectious or contagious disease should immediately cause such patient to be promptly isolated, after which notice should be given to the health authorities by such physician. The term "infectious and contagious disease," as defined, included cholera, smallpox, chicken pox, plague, diphtheria, including membranous croup. ship or typhus fever, typhoid, spotted, relapsing, yellow, and scarlet fevers, measles, glanders, leprosy, anthrax, and many other diseases of an infectious, contagious, or pestilential nature, or any disease declared by the Board of Health of Manila to be dangerous to the public health.

Another important section was the compulsory vaccination clause which made it the duty of every person in Manila to be successfully vaccinated at intervals of one year, and provided that every person who had been exposed to the infection of smallpox, including varioloid, should be successfully vaccinated or revaccinated a sufficient number of times at intervals of two weeks to render it evident that successful vaccination was impossible.

The Board of Health for the city of Manila continued in existence until its employees were formally transferred by Act No. 187 to the Board of Health for the Philippine Islands which had been organized under Act No. 157. The new Board consisted of a Commissioner of Public Health, a chief health inspector, a sanitary engineer, a secretary, and the Superintendent of the Government Laboratories as active members, and the chief surgeon of the United States Army in the Philippines, the chief surgeon of the United States Public Health and Marine-Hospital Service in the Philippine Islands, and the president and the vice-president of the Association of Physicians and Pharmacists of the Philippine Islands as honorary members.

The law provided that the Board of Health for the Philippine Islands should also act as the Board of Health for the city of Manila.

The next health legislation was comprised in Act No. 307, entitled "An act establishing the provincial boards of health and fixing their powers and duties." Following this came Act No. 308, establishing municipal boards of health, thus making the chain complete.

The compulsory vaccination which had been practiced in Manila since the organization of the health service was extended throughout the provinces by Act No. 309, which provided that every person living in the Philippine Islands who could not furnish satisfactory evidence, by certificate of recent date either from a president of a municipal board of health, a public vaccinator, or a duly qualified physician, or such other person as the board of health might designate, that he is immune should be vaccinated as often as the health authorities deemed necessary.

Subject to the supervision and control of the Board of Health for the Philippine Islands, the provincial boards of health had general supervision over the health and sanitary conditions of their respective provinces, including the health of domestic animals; exercised general control over the municipal boards of health within their jurisdiction; caused to be prosecuted all violations of sanitary laws, and enforced the regulations of the Board of Health for the Philippine Islands, and, subject to the supervision and control of the provincial boards of health, municipal boards of health had general supervision of the health and sanitary conditions of their municipalities, with power to enforce the regulations of the Board of Health for the Philippine Islands, and of the provincial boards of health.

The next important act in health legislation is known as Act No. 310, regulating the practice of medicine and surgery in the Philippine Islands. The act was passed just in time to keep the Islands from being overrun by quacks and impostors from all parts of the world.

With this legislation, supplemented by special acts, such as the act regulating the practice of dentistry and the act regulating the practice of pharmacy, as a working basis, the Board of Health extended its operations to every municipality in the Archipelago and conducted its work until changed into the Bureau of Health by Act No. 1407, otherwise known as the Reorganization Act.

Under Act No. 1407, unless otherwise provided by law, the Director of Health is the legal successor of the Board of Health for the Philippine Islands, which was abolished by said act, and of the Commissioner of Public Health.

This Bureau has an Assistant Director of Health, and in every other respect is on a Bureau footing—the only Bureau of Health under the American Government.

The Director of Health was given authority, subject to the approval of the Secretary of the Interior, to revoke or modify any order, regulation, by-law, or ordinance of a local board of health or of any municipality, except in the city of Manila, concerning any matter which in his judgment affects the public health. The Director of Health has not yet had occasion to exercise this authority, but the very fact that the law has provided a remedy against inimical ordinances and regulations has been sufficient to bring about the results desired.

The Reorganization Act abolished the Civil Hospital and the Civil Sanitarium, Benguet, as separate Bureaus, and merged them into the Bureau of Health as divisions thereof, and provided that the Director of Health shall perform or cause to be performed, and shall render or cause to be rendered the services required of the respective attending physicians and surgeons of the Philippine Civil Hospital and the Civil Sanitarium, by laws and executive orders in force at the time of the passage of the aforesaid act.

The Bureau of Health was also charged with the duty of caring for the health of the prisoners of Bilibid Prison, the Insular penitentiary, and given control and supervision of the sanitation of all Insular prisons and penal settlements, and placed in supervisory control over sanitation of all provincial and municipal prisons.

The only elimination effected by the reorganization was the transfer of the veterinary division of the former Board of Health to the Bureau of Agriculture as the division of animal industry, the right and duty of the Director of Health to safeguard the public health against dangerous diseases which may be communicated to man by animals or by means of animal products being reserved by a special provision of law.

After the general reorganization, by which the Board of Health for the Philippine Islands became the Bureau of Health, and the Director of Health assumed the powers and duties of the former board and the Commissioner, together with others incident to the merging of Bureaus, it became necessary to readjust the local machinery by an internal reorganization, which involved the abolishing of certain divisions and creation of others and a general rearrangement of duties to meet new conditions.

The Bureau of Health as now constituted consists of eleven divisions, designated as follows: Provincial health division, inspection division, clerical division, property division, statistical division, sanitary engineering division, San Lazaro Hospitals division, Civil Hospital division, prison sanitation division, Benguet Sanitarium division, and Culion leper colony division. Matters pertaining to the respective divisions are administered through the chiefs thereof, after passing over the desk of the Director, for his action.

The inspection division, which includes the duties of the chief health inspector under the former law, is now under the control of the Assistant Director of Health.

All financial matters are handled personally by the Director, who by this method is enabled to keep the expenses within reasonable limits and to acquire an intimate knowledge of the details of the Bureau.

The experience of the past year has amply justified the change from the Board to the Bureau system. The saving in time alone, to say nothing of money and annoyance, has in itself fully warranted the reorganization so far as the Bureau of Health is concerned.

Health legislation for the Philippine Islands, a brief of which has been given, shows that we are passing rapidly from the formative or evolutionary state to a definite, permanent basis.

The Philippine Commission has recently passed Act No. 1487, abolishing provincial boards of health, substituting therefor district health officers and defining their powers and duties, and repealing Act No. 307, entitled "An act providing for the establishing of provincial boards of health, and fixing their powers and duties." This act, after abolishing the provincial boards of health, provides among other things that each province may have a district health officer, appointed by the Governor-

General with the advice and consent of the Philippine Commission. Any regularly appointed person holding the office of president of a provincial board of health at the time of the passage of Act No. 1487 is eligible for appointment, without examination, to the position of district health officer during the period of two years from the date on which said act became effective.

Salaries of district health officers and of all other officers and employees assigned to health districts by the Director of Health shall be paid monthly from funds set aside for the support of the Bureau of Health. Under the old law they were paid by the respective provinces direct, and now each province of a health district is required to deposit in the Insular Treasury, to the credit of the Bureau of Health, on or before the 31st days of January and July of each year, its proportion of the salary of the district health officer or officers and of the salaries of all other employees assigned to the health district by the Director of Health, such proportion to be calculated by the Insular Auditor, who shall base the same upon the population of the respective provinces of the districts as determined by the latest census.

District engineers shall give information to district health officers as to the existence of any insanitary conditions and of any failure to comply with legal sanitary orders and regulations.

The district health officer, within his district, is to exercise general supervision and control over the health and sanitary work and exercise general supervision and control over the municipal boards of health within his district; is to have the power to institute all proceedings necessary to abate nuisances, and he may cause to be prosecuted all violations applicable to the district; he has the power to remove the cause of any special disease or mortality and to make and enforce, subject to the approval of the Director of Health and of the Secretary of the Interior, such internal quarantine regulations as he may deem necessary in any part of his district.

It is to be the duty of the district health officer of each district to prepare and recommend to the Director of Health suitable regulations for maintaining in a sanitary condition, all prisons, jails, theaters, schools, colleges, and other public or private institutions within his district, and, when practicable, attend all persons entitled by law to receive free medical aid and attendance, and upon the application of the local authorities shall, when practicable, attend, free of charge, persons confined in provincial or municipal prisons and inmates of other Government institutions. District health officers are to exercise the powers conferred upon them under the direct supervision and control of the Director of Health and to make such reports and to compile such statistics as he may require.

One special feature of the law is that whenever it shall be shown to the satisfaction of the Governor-General that any health district, or part thereof, is threatened with or suffering from an epidemic of infectious, contagious, or communicable disease of a dangerous character he may, in his discretion, issue an executive order declaring that the said district, or any part thereof, is threatened with or suffering from an epidemic and invest the Director of Health with emergency power to prescribe, subject to the approval of the Secretary of the Interior, such emergency health regulations as may be deemed necessary to prevent or suppress the occurrence or spread of such infectious, contagious, or communicable disease, and such regulations shall have the same force and effect and shall be enforced in the same manner as if enacted by legislative authority, throughout the district or districts, or parts thereof, as may be specified in the said regulations.

When it is shown to the satisfaction of the Governor-General that the danger of an epidemic has passed, he shall so declare by executive order, and upon publication of such executive order the emergency health regulations shall become null and void, unless in such executive order it is specifically declared that one or more of the emergency regulations shall remain in effect for a further period to be prescribed.

District health officers are to have authority to require that owners, agents, or occupants of any buildings, premises, places, or any part thereof, shall place and maintain them in a sanitary condition so far as the same relates to cleanliness. It is also to be the duty of district health officers, in necessary cases, to request the presidents of municipalities to enforce the municipal ordinances relating to sanitation, and in case a president neglects or refuses to perform his duty in that behalf it is hereby made the duty of the district health officer to cause to be instituted proceedings against such president in the Court of First Instance. In case the court finds that the president is guilty of neglect or refusing to enforce such ordinances, he shall be fined not exceeding ₱200 or imprisonment not exceeding six months, or both, in the discretion of the court, and shall be removed from office. The penalty for not complying with the requirements of the law is sufficiently strong to vouchsafe respect.

On the 30th day of June, 1906, provincial boards of health ceased to exist; the chain was temporarily broken. If it were possible to maintain our effective system of municipal boards of health, managed by competent physicians, the provincial or district organization would be of less importance, but under the present circumstances reliance must be had almost altogether on them, hence the necessity for concentrating and enlarging the power of the field representatives of the Bureau of Health, in accordance with the general plan of concentration and in the interests of economy measured both in time and money.

It is hoped that the new law, only a few features of which are referred to herein, will prove as satisfactory in practice as it is in theory. Organization and system mean everything in health work, in the Tropics as elsewhere.

CEMETERY LEGISLATION.

The Commission passed, on February 21, 1906, an exhaustive act regulating the establishment and maintenance of burial grounds and cemeteries and governing public funerals and the disposal of the dead in the provinces. The legislation was enacted to settle disputes with regard to cemeteries. Many of these arose on account of the differences between the Roman Catholic Church and the Independent Filipino Church, the latter, headed by Father Aglipay, being composed mostly of persons who formerly were members of the Roman Church. Practically every aspect of the disputed question has been covered by this cemetery act, which makes the settlement of such questions purely legal, and thus greatly simplifies a heretofore vexatious and delicate duty.

THE SANITARY CODE FOR MANILA.

There is now pending before the Municipal Board of the city of Manila a proposed ordinance entitled "An ordinance relating to sanitation, and providing a Sanitary Code for the city of Manila." This ordinance was originally prepared by the Board of Health for the Philippine Islands and forwarded to the Secretary of the Interior for transmittal to the Municipal Board in the manner provided in Act No. 1150, under the authority of which it was written. The Secretary of the Interior found that there were many provisions in the proposed code, as submitted, to which he could not give his assent; furthermore, he requested that the number of sections be reduced as much as possible in order to prevent the code from becoming too unwieldy. On this account it was returned to the present Director of Health, who rewrote the original code and returned into the Secretary of the Interior. It then received his provisional approval and was forwarded to the Municipal Board for enactment. Necessary delays and postponements have prevented the same from becoming a law, greatly to the detriment of the administration of health work in the city. The imminent danger of contaminating the water supply by bathing in the Mariquina River and the crossing of animals during the presence of cholera rendered it imperative that the chapter on water be passed and that provision be made for its enforcement without cumbersome delays, and to this end the Commission passed a special act conferring on officers of the United States Army in command of troops detailed at the request of the Governor-General to aid the Director of Health of the Philippine Islands in the enforcement of sanitary regulations, municipal health ordinances, and health laws, while in the performance of such duties, the status of peace officers with the right to bring the violators of such regulations, ordinances, and laws into court for trial; and also vesting soldiers of the United States Army serving under command of such officers with the authority to apprehend persons detected in such violation and immediately deliver them to an Army officer having the power of a justice of the peace. While this report does not cover the period beyond June 30, 1906, it is perhaps proper to add here that the experience gained during the month of July has amply demonstrated that the foregoing legislation is very effective. In fact, it has been possible to keep the Mariquina Valley in a far better sanitary condition than has heretofore been the case at any time since the Islands came under civil administration. These special precautions for safeguarding the water supply will be necessary until the new reservoir and water system, now in process of installation, are completed.

HEALTH AND CLIMATIC CONDITIONS.

Having briefly outlined some of the main features of sanitary legislation under which the health authorities have operated since American occupation, it may be appropriate to say, for the information of those who are contemplating a residence in the Islands and to those in the homeland who are worrying about their friends and relatives, that with respect to the climatological factors, temperature, and atmospheric movements the climate of the Philippine Islands is not extreme and occupies at least an intermediate place in the classification of tropical climates. It is distinctly insular in character, the greater portion of the land area being not far distant from the sea. Besides this, there are other modifying influences which obtain in portions of the Archipelago, such as general ocean and local interisland currents, prevailing winds, elevations, state of cultivation and drainage of the soil, and the presence of forests and other plant life.

Excluding localities in the Tropics characterized by excessive heat, high relative humidity, and unhealthful soil conditions, acclimation or physiologic adaptation of the white man to the tropical environment is possible, and is usually completed after the second year. Many people in the Philippine Islands escape the inconvenience and discomforts of the period of acclimation. With sanitary surroundings, and by observing the rules of personal and domestic hygiene, Americans live in safety in the Philippines with as little danger of disease or death as they might expect in the United States under similar sanitary conditions. In no country in the world has the Government done more for the protection of its employees. In addition to the Bureau of Health with its ample hospitals and sanitariums, there is a Bureau of Science where investigations are carried on by specialists in the various branches of science, especial attention being given to the pathology, biology, serum therapy, including practical inoculations and vaccinations.

SANITATION IN MANILA.

During the year the city of Manila has been redistricted so as to make the sanitary districts correspond with the police districts, thus not only enabling the two services to coöperate to greater advantage than under the old system, but a considerable saving was effected by eliminating one sanitary station. This arrangement has also been the means of saving the city nearly ₱7,000 for the salaries of former police surgeons, to say nothing of the expense incidental to their transportation. There are forty native police on special duty as sanitary inspectors, who, while carried on the pay rolls of the city police department, are under the direction of the Bureau of Health in all matters except discipline and leaves of absence. The personnel of a health station consists of a medical inspector in charge, an American sanitary inspector, usually a native assistant sanitary inspector, its quota of police sanitary inspectors, one or more municipal physicians, and one or more municipal midwives. Each station is charged with the duty of looking after the health and sanitary conditions of the district in which it is located. This involves the sanitary inspection of buildings, schools, bottling works, tiendas, hotels, restaurants, yards, alleys, latrines, vaults, stables, sewers and similar places and conveniences, and the preparation of orders for their repair, or, in the case of sewers, the notification of the proper authorities.

The stations also collect vital statistics, cause to be examined samples of water and food, investigate the sources and causes of disease, abate nuisances dangerous to the public health, exercise sanitary supervision over the markets, supervise local quarantine or detention, attend to the pauper sick, and look after dangerous communicable diseases. Medical inspectors act as coroner's physicians, and visit and examine all paupers who apply for hospitalization in order that they may be properly assigned. The stations also coöperate with the sanitary engineering division in those matters which require the advice and assistance of a sanitary engineer. Complete reports are submitted at stated times, and special reports as often as the occasions justify. In case of a dangerous communicable disease, immediate report by telephone is sent in, and the regular station report at the first opportunity. This arrangement enables the central office to keep in close contact with all that is going on of a sanitary nature in the city.

One of the main purposes sought to be attained in passing the district health officers' act is systematic organization, so far as practicable, for the provinces, on the general principles of the Manila system—that is, a complete adjustable organization that can be relied upon to meet any emergency that may arise.

VITAL STATISTICS, CITY OF MANILA.

Births.—The Bureau of Health has tried nearly every available means of securing accurate statistics with reference to births. It has had prepared a special blank printed in English and Spanish, and members of families, or the person giving the information, are permitted to sign said blank if there was no physician or midwife present. The advent of a baby in a Filipino household is too common an occurrence to remind the parents that its coming should receive official cognizance; the mother is up and at her duties the next day after the event, and oftentimes the date, including the day, month, and year, is forgotten. Some progress has been made, as may be observed from the fact that for the fiscal year ended August 31, 1904, the ratio reported was 35.36 per thousand, and for the fiscal year covered by this report it was 39.46 per thousand. The proposed Sanitary Code provides that, for the purpose of securing statistical information, baptismal records or any other records relating to vital statistics kept by the churches or other institutions in the city of Manila shall be accessible to any duly authorized officer or representative of the Bureau of Heatlh.

It will undoubtedly require many years to educate the people as to the importance of reporting births.

Deaths.—During the period covered by this report there were 9,016 deaths among the permanent population in Manila and 470 deaths among transients. The death rate among the permanent population of Manila was 40.99 per mille. If the number of deaths from cholera, which disease did not occur during the period covered by the report for last year, is deducted from the total number, the death rate will drop to 38.51 per mille, which is actually 2.48 per mille lower than it was for the year preceding. This is another evidence that the death rate of the city is being gradually brought down.

INFANT MORTALITY.

About three years ago the Bureau of Health began a campaign of education in matters pertaining to the care of infants. A special bulletin was prepared by a committee of native physicians and distributed among the people. In this bulletin special emphasis was placed on the value of proper feeding and the danger of allowing children to eat solid food before the eruption of the temporary teeth. It was shown that the mother's milk is the proper food for a young child and that the next best substitute is cow's milk. The best evidence that the health authorities have that these bulletins were widely read, even if not to advantage, is the fact that the consumption of milk in the city has increased probably 500 per cent, nearly all of the output being used as food for infants. As important as the factor is, it has had no marked effect in saving the lives of children, and the reason therefor must be apparent to all who know anything of local conditions. The trouble lies in the improper care of vessels and receptacles in which the milk is kept, the practice of adding river or estero water, and the failure to take the necessary precaution to keep the milk fresh. There is also the contamination at the time of milking to be reckoned with. Probably 95 per cent of the milk used is carabao milk. The carabao is by nature a dirty animal, and doubtlessly contributes a full share to the sum of impurities that vitiate the milk by the time that it reaches its destination, the infant's stomach.

The proposed Sanitary Code, which is still delayed, provides that all milk dealers shall register at the Bureau of Health, and that all vessels or receptacles used by them as containers for milk shall be made of smooth, impervious material, which is capable of being thoroughly sterilized by heat or other improved means, and that such container shall be provided with a suitable cover for protection against dust or other impurities and shall be sterilized each time before use. The code also provides that all milk sold or offered for sale shall be at all times subject to examination and analysis by the Bureau of Health, and that diseased milch animals may be summarily condemned and destroyed.

The practice of adding water to milk is so firmly established that it has been found necessary to make provision in the pending code that it shall be unlawful to bring into the city or sell or offer for sale any milk that is not fresh or wholesome or that has been watered, adulterated, reduced, or changed in any way by the addition of water or other substance. Adulterated milk is defined as (*a*) milk containing less than 12 per cent of milk solids, including fats; (*b*) milk containing more than 88 per cent of water or fluids; (*c*) milk containing less than 3 per cent of fats; (*d*) milk drawn from animals within fifteen days before or after parturition; (*e*) milk drawn from animals fed on any substance in a state of fermentation or putrefaction, or any unwholesome food; (*f*) milk drawn from cows in a diseased or unhealthy condition, or from cows kept in a crowded or unsuitable place; (*g*) milk from which any part of the cream has been removed, unless the fact is made known to the purchaser at the time of sale; (*h*) milk to which has been added water or any foreign substance whatever.

It will no doubt be a difficult matter to enforce these regulations, even when enacted as ordinances, but improvement is bound to follow. Success will not come until the people themselves learn to appreciate the fact that most diseases are introduced into the system from without, and that the infecting principle is a germ against which the only protection is absolute cleanliness. This idea of disease appears to the minds of the masses of the people as too hypothetical to be worthy of belief. The native physician, in the course of time, may educate the people along these lines, but not until the needless sacrifice of thousands.

PUBLIC CHARITIES.

The Bureau of Health has special contracts with the Hospicio de San José for the care of a limited number of insane patients, old people, and orphans; and with the Santa Isabel Convent and the Convent of the Sisters of the Order of St. Vincent de Paul for the care of homeless and friendless girls. The city has a special contract with the St. Paul's Hospital and with the San Juan de Dios Hospital for fifty beds each for the hospitalization of the poor.

Station clinics.—Daily clinics are held at all of the health stations and at the central office. A doctor is in constant attendance to wait on such cases as fail to attend the respective clinics during the regular hours.

Central pharmacy.—At the beginning of the year three separate pharmacies for the filling of prescriptions written for the indigent poor were maintained in different sections of the city. These were combined into one and removed to the central office of the Bureau of Health. Arrangements were then made so that prescriptions which are more or less complicated in character could be filled either at the Central Pharmacy, the Civil Hospital, San Lazaro Hospital, or at the Episcopal Dispensary in Tondo. At the places at which the pharmacies were formerly located dispensaries for the treatment of the sick were continued and also a small supply of medicines furnished to each station, so that first-aid remedies and simple medicines can be obtained at all health stations in the city of Manila.

By this means it has been possible to reduce the expense of furnishing medicines to the poor and at the same time increase the number of places at which treatment can be obtained and prescriptions filled.

Other free dispensaries.—In addition to the free dispensary service of the Bureau of Health there is the out-clinic, medical and dental, of the St. Paul's Hospital, the St. Luke's Dispensary of the Episcopal Church, the Annie Norton Dispensary (private), several free clinics conducted by native physicians, and there soon will be in operation a free maternity hospital to be conducted under the auspices of the Methodist Church. These institutions are a great blessing to the poor, who, in steadily increasing numbers, are availing themselves of their benefits.

Municipal physicians.—In each distinct there is one or more native physicians in the employ of this Bureau whose duty it is to attend to the poor. There is no class of men in Manila who do more good than the municipal physicians. The service of a Chinese physician, a regular graduate and a member of the Manila Medical Society and the Philippine Islands Medical Association, has been secured to attend to the pauper sick among the Chinese.

Municipal midwives.—In each district there is a sufficient number of municipal midwives employed to attend to all confinements among the poor. The employees are under the supervision of the district medical inspectors and under the direct charge of the municipal physicians, with whom they are required to coöperate and to whom they must go for assistance.

THE OUTBREAK OF CHOLERA IN THE PHILIPPINES OF 1905–6 AND THE METHODS USED IN COMBATING IT.

According to the official records on file at the Bureau of Health for the Philippine Islands, the last case of cholera of the pandemic which commenced March 20, 1902, was reported to have occurred March 8, 1904. During that period 166,252 cases with 109,461 deaths were reported. Reliable observers are of the opinion that at least one additional case occurred for each one that found its way into the official records.

From March 8, 1904, until August 23, 1905, no cases are known to have occurred. From time to time during this latter period suspicious cases, which clinically resembled Asiatic cholera, came to the attention of the Insular Board of Health, but the diagnosis could not be confirmed bacteriologically. For the two weeks immediately preceding August 23 the number of suspicious cases increased. In Manila one occurred in San Pedro Macati, a suburb of Manila; one in a bakery in Paco; one in the San Miguel district; one case was that of a soldier in Cuartel de España, and several in the Province of Rizal. The cases in Manila were all carefully autopsied, and the intestinal contents bacteriologically examined by such competent observers as Dr. R. P. Strong, of the Government Laboratory, and his assistants; and the case of the soldier was carefully investigated by the military medical authorities and specimens examined at the Army laboratory which is maintained in connection with the First Reserve Hospital, in Manila. From both of these independent sources the results were reported as negative. On August 23 a case developed in Bilibid Prison, which was a typical clinical picture of cholera. After a few hours the victim succumbed. The post-mortem examination showed the ileum to be deeply injected and filled with rice-water-like material, and the bacteriological examination made by Dr. R. P. Strong revealed the spirillum of Koch. Thus occurred the first officially recognized case of cholera of the present outbreak.

A case in an institution which is practically cut off from the remainder of the world; where all foodstuffs are permitted to enter only after the most rigid inspection; where all food served that could likely convey cholera is cooked at all times, and, on account of dysentery, it is said that all drinking water was sterilized; it would seem that the routine precautions thus taken should also have afforded protection against cholera. The commencement of an outbreak in this insidious manner was most puzzling to the sanitary authorities, and the prospects of combating a disease whose origin was so obscure were not encouraging.

On the following day six cases, suspicious of cholera, were reported by Major Wales from Fort William McKinley, which is located about 7 miles up the Pasig River from Manila. For the week preceding August 23 about eight cases, with profuse diarrhea and vomiting, followed by collapse, had occurred at the fort. The symptoms were the same as those usually found in vino poisoning which is so common among the United States soldiers in the Islands, and in the absence of any cholera being reported anywhere in the Philippines there was no particular reason for investigating the cases further. In view of the fact, however, that the diagnosis of some of the later cases that occurred at the fort was bacteriologically confirmed, the earlier diagnoses of vino poisoning may not have been correct. The military medical men at once commenced active measures, and the comparatively few days during which cholera persisted at the fort is another excellent example of how readily the disease can be eradicated when sanitary principles are intelligently applied.

On August 25 an American woman residing at the Grand Hotel, in the Walled City, was attacked and died in a few hours. On the same day an American man residing on San Sebastian street, in a section of the city nearly 2 miles from the previous case, was seized and died several hours afterward. No connection could be traced between the two cases, nor could any history be obtained that the same articles of food which would be likely to convey the infection had been eaten by these two victims.

Cases in Manila then occurred as follows:

Date.	Number of cases.	Date.	Number of cases.	Date.	Number of cases.	Date.	Number of cases.
1905.		1905.		1905.		1905.	
Aug. 23	2	Aug. 28	6	Sept. 2	12	Sept. 7	8
Aug. 24	1	Aug. 29	9	Sept. 3	27	Sept. 8	7
Aug. 25	3	Aug. 30	5	Sept. 4	18	Sept. 9	4
Aug. 26	8	Aug. 31	7	Sept. 5	12	Sept. 10	3
Aug. 27	10	Sept. 1	17	Sept. 6	10		

From this period the cases averaged about one per day until the end of the year, the total cases from August 23 to December 31, 1905, inclusive, being 250.

The characteristic tendency of the outbreak continued during the early weeks of the scourge, viz: No connection could be traced between the cases. No two cases occurred in any one house nor did two cases occur in any one group of houses. To bring this point out more clearly, the chronological order in which the cases occurred is given on the map shown in Plate I, from which it may be seen that the next case almost invariably occurred in a section of the city far distant from the previous case, and furthermore, it will be noted that the next case did not occur in the same section until the likely incubation period had expired.

At the commencement of the epidemic of 1902, cases were reported in Manila as follows:

Date.	Number of cases.	Date.	Number of cases.	Date.	Number of cases.	Date.	Number of cases.
1902.		1902.		1902.		1902.	
Mar. 20	4	Mar. 25	15	Mar. 30	11	Apr. 4	13
Mar. 21	6	Mar. 26	12	Mar. 31	6	Apr. 5	9
Mar. 22	4	Mar. 27	11	Apr. 1	17	Apr. 6	11
Mar. 23	8	Mar. 28	6	Apr. 2	4	Apr. 7	9
Mar. 24	14	Mar. 29	5	Apr. 3	13		

By comparing this table with the previous one, it will be seen that at the end of the second week *there had actually been more cases during the outbreak of 1905 than during that of 1902.*

In the meantime, a telegram received August 26 from Jalajala,

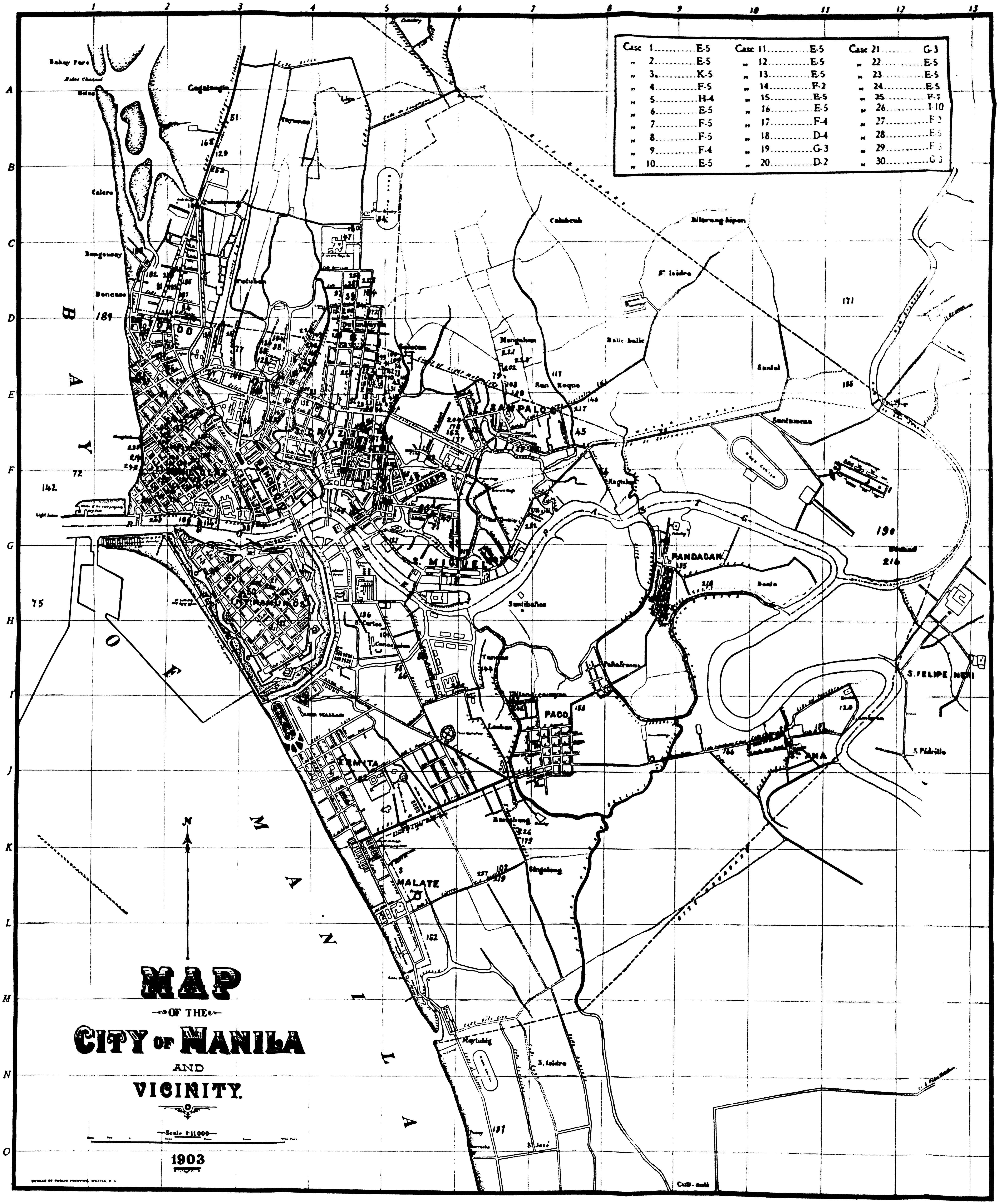

PLATE I. CITY OF MANILA, SHOWING CHRONOLOGICAL DEVELOPMENT OF CHOLERA CASES IN EPIDEMIC OF 1905.

Province of Rizal, through the Army Medical Department, contained the following information:

> Cases of a disease resembling cholera have developed in Jalajala, the first case being registered on the 21st; from that date to the 25th 16 cases and 12 deaths have been registered, the illness lasting from twelve to twenty-four hours.

On August 26 another telegram, received from the president of the provincial board of health of Rizal, at Pasig, reported one suspicious case, followed by death, in that town. A representative of the Insular Board of Health and another from the Bureau of Government Laboratories proceeded at once by special launch to Pasig and Jalajala for the purpose of making an investigation as to the cause of the outbreak in these places. The result of this investigation did not shed any light upon the origin of the infection. Inquiry made by the inspectors only resulted in showing that at least one week prior to August 23 more deaths had occurred in Jalajala than usual and that the victims had profuse diarrhea and died in a few hours after the symptoms manifested themselves.

An investigation made by Dr. L. T. Hess, captain and assistant surgeon, United States Army, of the records on file at Muntinlupa and Biñan, situated in Rizal and Laguna Provinces, respectively, and on the opposite shore of Lake Laguna from Jalajala, showed that death certificates had been filed during the week preceding August 23 for a number of cases in which the cause of death was given as "suspicious diarrhea."

The following table will show the order in which other towns in the provinces became infected, the duration of the disease, and the number of cases and deaths:

Case No.	Town.	Province.	Date.		Number of cases.	Number of deaths.
			First case.	Last case.		
			1905.	1905.		
1	Jalajala	Rizal	Aug. 20	Sept. 20	28	18
2	Guadalupe	do	Aug. 24	Aug. 24	1	1
3	Taguig	do	Aug. 25	Oct. 11	68	51
4	Pasig	do	Aug. 27	Oct. 31	59	47
5	Santolan	do	Aug. 28	Aug. 28	1	1
6	San Pedro de Macati	do	do	Sept. 22	4	4
7	Taytay	do	Aug. 29	Oct. 30	132	115
				1906.		
8	Guagua	Pampanga	Sept. 1	Feb. 5	87	76
9	Indang	Cavite	do	Feb. 16	25	21
				1905.		
10	San Mateo	Rizal	Sept. 2	Oct. 13	16	12
				1906.		
11	Malabon	do	do	Feb. 16	80	78
				1906.		
12	Bulacan	Bulacan	Sept. 4	Mar. 2	31	22
13	Sangley Point	Cavite	Sept. 5	Sept. 5	1	3
14	Pasay	Rizal	do	Sept. 19	4	1
15	San Felipe Neri	do	do	Sept. 5	1	1
				1906.		
16	Pila	Laguna	Sept. 7	Jan. 12	9	8
				1905.		
17	Cavite	Cavite	do	Mar. 13	41	39
18	Parañaque	Rizal	Sept. 8	Apr. 23	5	3
19	Santa Rosa	Laguna	Sept. 11	Nov. 24	23	18

Case No.	Town.	Province.	Date.		Number of cases.	Number of deaths.
			First case.	Last case.		
				1905.		
20	Mariquina	Rizal	Sept. 18	Oct. 26	9	8
21	Binangonan	do	Sept. 16	Nov. 19	60	29
22	Morong	do	do	Nov. 12	186	116
23	Antipolo	do	Sept. 17	Oct. 26	56	35
24	Meycauayan	Bulacan	Sept. 23	Sept. 23	1	1
25	Los Baños	Laguna	Oct. 2	Oct. 5	19	14
26	Imus	Cavite	Oct. 3	Apr. 4	195	148
27	San Francisco de Malabon	do	Oct. 5	Nov. 28	12	11
28	Carmona	do	Oct. 6	Oct. 6	1	1
29	Caloocan	Rizal	Oct. 13	Oct. 16	4	2
30	Lucban	Tayabas	Oct. 12	Oct. 23	4	4
31	San Pablo	Laguna	Oct. 18	Oct. 18	1	1
				1906.		
32	Biñan	do	Oct. 16	Jan. 21	112	93
33	Pagsanjan	do	Oct. 20	Jan. 28	11	10
				1905.		
34	Paete	do	Oct. 21	Mar. 7	39	24
				1906.		
35	Naic	Cavite	do	Feb. 25	243	174
				1905.		
36	Bay	Laguna	Oct. 22	Oct. 22	1	1
				1906.		
37	Santa Cruz	do	Oct. 23	Jan. 28	48	41
38	Majayjay	do	Oct. 24	Jan. 14	17	12
				1905.		
39	Cabuyao	do	Oct. 28	Oct. 28	2	2
				1906.		
40	Calamba	do	Oct. 31	Jan. 21	65	44
41	Hagonoy	Bulacan	Nov. 1	Mar. 7	197	139
42	Noveleta	Cavite	do	Feb. 6	135	80
43	Macabebe	Pampanga	Nov. 6	Apr. 22	81	68
44	Magdalena	Laguna	do	Jan. 14	7	6
45	Lilio	do	Nov. 8	Jan. 4	22	18
46	Nagcarlang	do	Nov. 9	Jan. 14	2	1
				1905.		
47	Tanauan	Batangas	Nov. 20	Dec. 11	10	6

In order to show the progress of the disease more clearly, the section of the Philippines in which cholera occurred is shown in Plate II. Upon this map numbers have been placed which show the appearance of the disease in chronological order in the various towns affected.

The cases and deaths in the city of Manila from August 23 to December 31 were distributed, by age, as follows:

Age.	Cases.	Deaths.	Mortality.
Under 30 days	0	0	----------
1 to 2 years	3	3	100
2 to 5 years	20	20	100
5 to 10 years	14	14	100
10 to 15 years	14	11	78.6
15 to 20 years	23	17	73.9
20 to 25 years	33	28	84.8
25 to 30 years	33	28	84.8
30 to 35 years	42	38	90.2
35 to 40 years	24	19	79.2
40 to 45 years	18	17	94.4
45 to 50 years	8	8	100
50 to 55 years	11	11	100
55 to 60 years	1	1	100
60 to 65 years	6	6	100
65 to 70 years	0	0	----------
70 to 75 years	1	1	100
75 to 80 years	1	1	100
80 to 85 years	1	1	100
Unknown	2	2	100

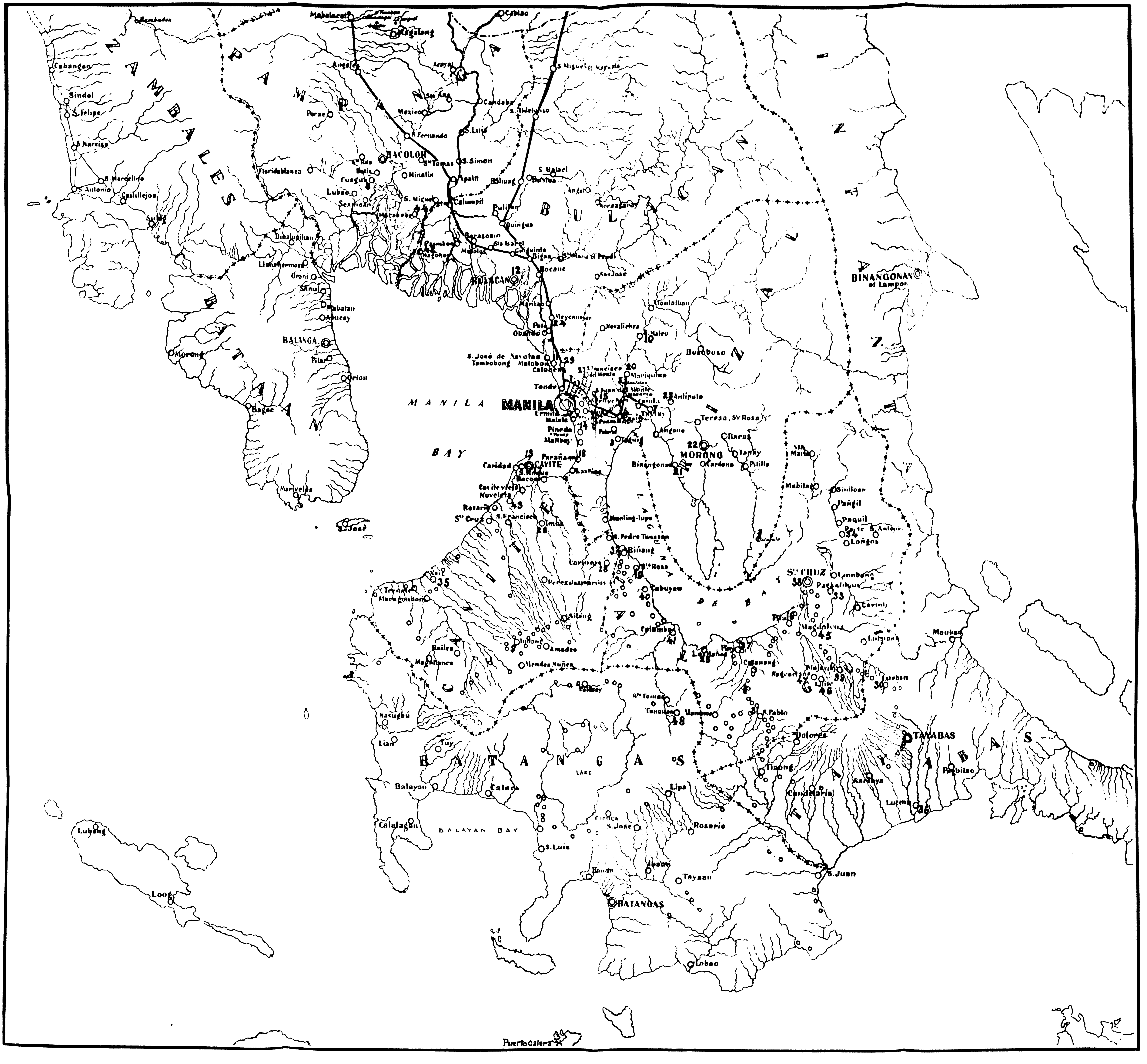

PLATE II. CHRONOLOGICAL ORDER OF CHOLERA CASES IN THE PROVINCES DURING AUGUST AND SEPTEMBER, 1905.

The number of cases of cholera that occurred, by race, between August 23, 1905, and December 31, 1905, and the date of the last case were as follows:

Race.	Number of cases.	Number of deaths.	Mortality.	Ratio of 1 case to—	Date of last case.
					1905.
Americans	11	6	54	399	Oct. 10
Filipinos	220	200	90.9	862.6	Dec. 31
Chinese	4	4	100	5,307.5	Oct. 8
Foreigners	20	16	80	227	Nov. 8

From the above table it will be seen that in proportion to their number more foreigners (Europeans) contracted cholera than any other nationality, that Americans ranked next but had the lowest death rate, and that the least number occurred among the Chinese. The mortality of 100 among the Chinese may be attributed to the fact of the very few cases that occurred, and that those who recovered probably escaped detection by the health authorities. That no further cases occurred among Americans after October 10 was probably due to the fact that as soon as they believed the disease to be actually present, they observed the prophylactic measures against cholera more strictly. The high percentage of Europeans and Americans attacked may also be more apparent than real, because it is quite probable that all these persons of this race who were attacked promptly sought medical advice and thus were reported, while among the natives and Chinese, in all probability, cases occurred which recovered, and thus were not reported.

In the following table is given the death rate per thousand for the years 1903 and 1904, in which no cholera was reported. The death rate for the same months in 1905, during which period 250 deaths from cholera are reported, is also given:

Month.	1903.		1904.		1905.	
	Number of deaths.	Annual death rate per 1,000.	Number of deaths.	Annual death rate per 1,000.	Number of deaths.	Annual death rate per 1,000.
August	862	46.17	1,032	55.28	841	45.03
September	1,228	67.97	1,064	58.89	1,018	56.06
October	1,217	65.19	1,018	54.53	850	45.51
November	974	53.91	957	52.97	844	52.24
December	894	47.89	794	42.53	841	45.03
Total		281.13		284.20		243.87
Average		56.22		56.80		48.77

From the above table it will be seen that the death rate for the years in which no cholera was reported was actually higher by more than 8 per thousand than in 1905, when cholera was reported. The death rate is of particular importance in view of the fact that an increase in the mortality has been almost universally accepted as being a strong factor in indicating that deaths from communicable diseases were occurring.

Many epidemiologists who have written upon this subject in the past have laid especial stress on the fact that where it was difficult to obtain the actual cause of death an increase in the number of deaths should be regarded with suspicion.

A study of the cholera cases, by occupation, shows that they are rather evenly distributed, and no particular deduction can be made.

It will now be interesting to consider whether the infection was introduced from without, and in this connection it will be important to ascertain in what other nearby countries cholera was present at the time it made its appearance in the Philippine Islands.

Manila is in active communication, by direct steamship lines, with the following Oriental ports: Yokohama, Kobe, Nagasaki, Moji, Shanghai, Amoy, Hongkong, Saigon, Singapore, Rangoon, Calcutta, Madras, Bombay, and indirectly with Sourabaya and a few other Javanese and Bornean ports. Examination of the official sanitary statistics received from the ports mentioned discloses the fact that cholera was present in an isolated manner in the country to the back of Kobe, Japan, in Calcutta, and in Bombay. In the case of the two latter ports, the sailing time to Manila, by the most direct steamers, is at least nine or ten days from Calcutta, and at least fifteen days from Bombay. In view of the fact that the incubation period is only five days and that no sick were found upon any of these vessels, and, that from laboratory experience it has been ascertained that vegetables and other cargo which come from those ports will not serve as media for the growth of the cholera bacilli for a greater period than five days, shows that for practical purposes these two ports may be dismissed from further consideration. At any rate, the only importations from India are rice, onions, potatoes, textiles, ivory goods, and other articles not at all likely to convey cholera organisms. No cholera was reported in Hongkong and none was known to exist in Canton, but in view of the fact that the actual status of the public health in Canton is not well known at any time, that place can not be excluded with any degree of positiveness. The time from Canton to Manila, by way of Hongkong, would require at least from four to five days, but in view of the fact that only onions, potatoes, garlic, and such other vegetables were shipped from these ports, which are necessarily forwarded in a dry state, it is not likely that cholera organisms could have been introduced with them; furthermore, no sick were found on any of the vessels which entered the Philippines from Hongkong, so that it is reasonable to exclude that port from the list of places likely to have been the cause of the introduction of the infection.

The records show that from Kobe a number of vegetables were shipped, but they consisted principally of onions and potatoes and a very small amount of cabbage. The vessels that arrived from that port for the month preceding the outbreak of cholera in Manila did not have any cases aboard which were in any way suspicious of cholera. In view of the fact that cabbage is the only vegetable which could likely have been the cause of the introduction of cholera, and since at least five days is consumed in the voyage, and more time must necessarily have elapsed before it could have been placed on the market, and since experiments made in the laboratory of the Public Health and Marine-Hospital Service show conclusively that cholera organisms can not be kept alive on cabbage for longer than five days, this method of the introduction of the infection may also be excluded. The only other articles which are open to suspicion, imported from Kobe, Japan, are classes of food peculiar to the Japanese, and which are not eaten by other nationalities. Many of these consist of vegetables in a fermented state, which in itself precludes the possibility of cholera organisms existing therein, and furthermore, since no Japanese persons are known to have been attacked in the city of Manila until the disease was present at least five days and after more than 25 cases had occurred among other nationalities, it is not likely that the infection can be ascribed to Japanese food products.

From the foregoing it will be observed, then, that so far as it is possible to tell from the records it is not likely that the infection gained entrance into the Philippine Islands from without.

The disease slowly spread to the provinces, as may be seen from statistical tables which are given elsewhere in this report, but at no time did it reach much beyond 75 miles from Manila. Toward the beginning of May the disease had almost entirely disappeared from the Islands; between May 22 and June 2 there was not a single case reported either in the city or in the provinces. On this latter date, however, a case made its appearance in Pasig. From June 2 to June 9 no further cases were reported. Upon this latter date, however, Pasig again showed 3 cases; on June 12, 4 cases; June 14, 5 cases, and upon the 18th, 7 cases were reported. The importance of the presence of the disease at Pasig will be appreciated when it is understood that it is the center through which a large part of the traffic into and out of the Provinces of Laguna and Rizal passes. It has a railroad line, river steamers, and wagon roads and trails which lead in various directions. It has numerous market places and is a distributing center. On account of the foregoing, the appearance of the disease at Pasig was more serious than it would have been at many other provincial towns.

About June 18 the disease appeared more or less simultaneously in the towns of San Felipe Neri, Pandacan, and Cainta, in the Province of Rizal, and Siniloan, Pila, and Bay, in the Province of Laguna, and in Malolos in the Province of Bulacan, and in Angeles, in Pampanga. The advocates of the theory that the disease is propagated by some fermentation or other mysterious process which goes on in the soil, immediately came forward and pointed out that this was a full justification of their claims. At best, this explanation could not be regarded as satisfactory, and it is much more probable that the simultaneous appearance of the disease can be attributed to the returning pilgrims from a visit to Antipolo, who stopped in Pasig and probably purchased some vegetables which had been fertilized with liquid human excrement that contained cholera organisms.

Owing to the proximity of the disease to the Manila watershed, it was deemed advisable again to request that the Mariquina Valley, in which the watershed is located, be patrolled by a military guard to prevent its pollution.

The disease again gradually established itself in the same province in which it had been encountered earlier in the fiscal year, but in view of the fact that the outbreak has extended into the beginning of the next fiscal year, the matter will be reported more fully in the next annual report.

In mapping out a campaign for the suppression of the disease, the work was divided into four parts:

(1) *Isolation of the sick in the cholera hospital and the rigid disinfection of their houses and effects.*

(2) *The protection of the city water supply, including the closing of wells located in the city of Manila.*

(3) *Prohibition of the sale of foodstuffs likely to become contaminated, and the proper protection with fly screens of the remainder.*

(4) *The education of the public in the precautions to be observed in evading the disease.*

(1) The carrying into effect of the isolation of the sick and their treatment at the cholera hospital was so well organized, as the result of the experience gained in the former epidemic, that this particular feature worked very smoothly. But in other respects the work was attended with considerable difficulty on account of the strong antipathy of the Filipinos to be treated elsewhere than in their homes.

No attempt was made to quarantine contacts nor was any attempt made to institute a land quarantine at any place in the Islands. This was a radical departure from the manner in which the epidemic of 1902 was conducted. The infection was followed from center to center, the sick were isolated, and every practicable measure was taken to destroy the infection and thus prevent its spread. It is believed that this method was of more value than an attempted quarantine could have been, as the latter would necessarily have had to be too despotic to have been of any permanent value. The policy was to educate rather than to antagonize, and what has been lost in some respects has been more than compensated for in others. By comparing the spread of the disease during this epidemic with that of the previous one it will be seen that the disease actually spread slower this time than before. To quarantine effectually the infected area in and around Manila, not to mention the provinces, would have required from 30,000 to 50,000 armed men, and unless a quarantine is made effective it is useless. The cost of maintaining such a quarantine, and the salaries for guards, and delays and losses to business would have been enormous.

It may be contended that the infection this time was milder in character, and for that reason did not spread, but when it is remembered that the mortality was over 90 per cent and that nearly all the victims succumbed in a few hours after the first symptoms appeared—and almost without exception the disease spread rapidly unless prompt disinfection was done—it will be seen that this contention has very little ground upon which to rest.

The beneficial effect of not alarming the populace, and thereby causing a great emigration from the centers in which the disease appears, can scarcely be overestimated. By the plan followed out, cases of cholera, instead of being carried far and wide in every direction, were confined largely to Manila where they could be promptly isolated and the necessary disinfection performed, the consequence of which, of course, was that there was little danger from the spread of infection in such cases.

The one idea that was kept constantly in mind was to so arrange the inspection system that the desinfectors could reach the cases in the shortest possible time. The disinfection was made as simple as possible and strict instructions issued that nothing must be destroyed or damaged, with the possible exception of the prepared food which was found in the houses; the stools of the patients and the places where they were thrown, and the clothes which they soiled, were diligently sought for and thoroughly disinfected with a 1 : 1,000 bichloride solution or a 5 per cent carbolic solution. The floors and walls were thoroughly saturated with the same solutions by means of a pump. All containers in which water was stored—as, for instance, water coolers, earthen jars, filters, barrels, wells, etc.—were treated with permanganate of potassium. Contacts were required to take an antiseptic bath. The disinfecting carts were maintained much the same as the fire department. The horses were kept hitched up night and day, and when report was received they reached the infected house a few minutes later. From the fact that no second case occurred in any house, tells most effectively how efficiently the disinfection was done.

(2) A few days after the outbreak of cholera in Manila, a few isolated cases of cholera were carried to the watershed from which Manila obtains its drinking water. These cases probably came from Tay Tay, a small town in Rizal Province, located near the watershed. The importance of properly guarding the water supply of a city of 219,000 inhabitants will be readily appreciated. Arrangements were promptly made for sending an adequate patrol to the Mariquina Valley to prevent the pollution of the water. Through the courtesy of the commanding general of the Philippines Division four troops of the Eighth Cavalry were promptly

ordered to the valley and remained there until long after the time that the last case of cholera was reported. The watershed is inhabited by about 10,000 persons, and from time immemorial it has been their custom to bathe and wash in the Mariquina River, from which the Manila water supply is drawn. To deprive them suddenly of this privilege produced great opposition among the people and made it most difficult for effective work to be done. For that reason great credit is due to the American troops on account of the great patience which they exercised. The fact that the river was not polluted, although many cases of cholera occurred immediately along its banks, shows most conclusively how effectively the troops carried out the duties to which they were assigned.

As an additional protection, during the time that the cholera on the watershed was at its height it was deemed advisable to place a sufficient amount of copper sulphate in the city reservoirs to make a solution of 1: 2,000,000. Subsequent experiments made at the laboratory, however, with the regular city water, showed that at least 1:150,000 would be required to kill cholera organisms with certainty in thirty minutes' time. As this would be unsafe for drinking purposes after continued use, it is of course obvious that cholera organisms can not be successfully removed from public water supplies by the use of copper sulphate.

In the city of Manila there are yet a great many wells. Most of them are said to be used only for the purpose of sprinkling streets, washing carriages, and other uses, but the danger is always present that they will be used for drinking purposes, and for that reason an order was issued closing all wells in the city of Manila.

After the city mains were protected and the wells were closed, it could almost be said with certainty that no large epidemic could take place in the city of Manila, and this proved to the case.

(3) One who has never seen the local native markets will perhaps have difficulty in appreciating the great variety and kinds of food stuffs that are offered for sale, and the ideal culture medium which they offer for cholera organisms. Some are composed of snails, some of fish of various kinds, some of crabs and other shellfish; many of cooked vegetables, etc. There are also many green vegetables which of necessity must be continually watered in order to keep them in a fresh condition. The great amount of handling, by the fingers of prospective buyers, which all the food stuffs in the public markets receive makes it clear that they are likely at any time to become contaminated by persons who are either in the incubation stage of cholera or have come in contact with infected material.

The chewing of the betel nut has long been under suspicion as being, perhaps, the most common manner by which cholera is propagated and continued in the Philippine Islands. This practice consists in extracting the kernel from a nut that is about from 5 to 8 centimeters long, with a diameter of 2 centimeters. The outer cover of the nut is a thick husk, comparable to that of the green walnut or butternut of the United States. The kernel, when extracted, is cut into disks, each of which is wrapped with a piece of moist green buyo leaf. It is in this leaf that the danger is supposed to lurk. In order to keep the leaves in good condition they are kept in an earthen pot and thoroughly sprinkled with water every few hours. As new supplies of the leaf come in, the old water that accumulates in the bottom of the vessel is not always replaced by fresh water. Each prospective purchaser of the buyo leaf usually handles with the fingers all the leaves that are found in the pot, in order to find those which are most tender. In this way the buyo leaves in a given vessel are probably handled by different persons many hundred times each day before they are finally disposed of, and if there is any cholera in the neighborhood it is quite easy to conceive how, sooner or later, a person who has cholera organisms on his fingers will come in contact with the buyo leaves. To prevent the sale and the use of the betel nut and this buyo leaf is probably one of the most difficult things which the Bureau of Health had to attempt. Confirmed betel-nut chewers are almost as insistent upon having their chewing materials as the average opium habitué is in obtaining his supply of opium, and they will go to every possible trouble and risk in order to obtain it.

Street peddling was entirely forbidden. The sale of fruit that grew well above the ground—as for instance, those things grown on trees, exemplified by bananas, cocoanuts, mangoes, and other fruits—was not interfered with to any great extent. Those fruits, fortunately, are not handled very much by prospective buyers before being bought, and therefore are not likely to become contaminated. Some of the cheaper articles which were absolutely indispensable to the poorer classes were permitted to be sold, provided the shopkeeper agreed to keep the product under fly screens and to prevent intending purchasers from handling the same.

With the aid of the police these regulations were fairly well carried out, and perhaps aided considerably in preventing the spread of the disease.

(4) This was probably the most important work which was done by the Bureau of Health, and the success in controlling the outbreak was no doubt largely due to the coöperation which was given.

In order to place something practicable before the public, something which required very little expense, trouble, or knowledge to carry it out, the following simple rules were printed in the newspapers, and then issued in the form of a handbill in English, Spanish, Tagalog, Ilocano, Visayan, and other native dialects:

1. Boil all drinking water and place it while hot in covered vessels. Do not dip up the water when needed, but *pour* it into drinking cups, otherwise cholera germs may get into the water from the hands.

2. Do not touch drinking water or food with the hands unless they have just been washed in water that has been boiled.

3. Eat only cooked food. Avoid all fruits, raw vegetables, and raw fish. Dried fish may be made safe by thoroughly heating. Fruits may be made comparatively safe by dipping them a few seconds into boiling water.

4. Flies may carry cholera germs on their feet from human excreta to food; therefore, to protect it from flies, cover all food immediately after it is cooked.

5. If cholera appears, build smudges under houses to drive flies away.

6. Boil all water used for diluting milk.

7. Cook all meats and fish thoroughly so as to heat the same throughout.

8. Keep kitchen and table dishes thoroughly clean and scald them before using.

9. Keep the place in which you live, the ground under the house, and everything pertaining to it, clean.

10. Outhouses, closets, and vaults can be made safe by putting in lime or carbolic acid. When this can not be done dejecta must be buried or thoroughly covered with earth.

11. Isolate all the sick. It is recommended that a house in each barrio be set aside for this purpose.

12. All the dead should be embedded in lime and buried 3 feet under the surface.

13. Filth or vomit and the dejecta of the sick should be promptly cleaned up with boiling water and buried.

14. Clothes and bedding used by sick persons must either be burned or boiled. Do not wash any clothes near wells or springs or permit surface water to run into any well or spring.

15. Municipal presidents and municipal councilors should enact these rules as ordinances and see that they are enforced.

16. All school children are requested to inform their parents of these rules, which, if observed, will prevent great loss of life.

The Bureau of Education sent these circulars to every school-teacher in the Islands, with instructions that the rules should be taught to all pupils, so that they could recite them and then the pupils were requested to repeat them to their parents. The archbishop of the Catholic Church of the Philippine Islands sent the circulars to every priest, with instructions that they should explain their contents to their parishioners. The Aglipay Church and other denominations did the same. Very large, flaring, red cardboard posters, with the rules printed in several languages, were posted in the post-office, municipal buildings, and other public places throughout the Islands. Later a more advanced cholera circular was prepared for the use of teachers. The information contained in these later circulars enabled many teachers to cope successfully with the cholera when it made its appearance in the small towns in which they were at work.

Many thousands of Filipinos soon learned that they could easily avoid contracting the disease. How different was this picture from that presented in 1902, when only fatalistic indifference was shown, and the only measures taken by the natives themselves consisted in nightly religious processions. With the exception of a few towns where dense ignorance prevails, these latter were scarcely ever encountered. The number of persons who boiled their drinking water was astonishing.

One of the regrets of the year is the fact that the present cholera outbreak in the Philippines did not offer an opportunity for making a proper and adequate test of the usefulness of cholera vaccine as a means of stamping out cholera. A number of attempts were made with this end in view, but all of the data which resulted was unsatisfactory from a scientific standpoint. For instance: During the outbreak which occurred in Bilibid Prison in August, about half of the inmates of the institution were inoculated, the other half being allowed to remain uninoculated. At the same time that inoculations were commenced, vigorous ordinary sanitary measures for the eradication of the disease were also begun, and four days afterwards no further cases of cholera occurred. In view of the fact that the disease stopped as suddenly among the uninoculated as among the inoculated, it is impossible to draw any conclusions of the value of inoculation.

In the town of Siniloan, Province of Laguna, where such remarkable success was had in stamping out cholera, about one-half the population was inoculated, but ordinary sanitary measures were started at the same time that the inoculations were commenced, and three days afterwards the disease had entirely disappeared. This is another instance where the disease disappeared just as quickly among the uninoculated as among the inoculated. A similar experience was had in the town of Angat, Province of Bulacan.

During the latter part of June it was reported that the president of the municipality of Siniloan had died of cholera. In view of the fact that there was no further spread from the disease, it was thought that probably the prophylactic inoculations made some months previous had had some beneficial influence in preventing its spread, but in the town of Bay, Province of Laguna, there also occurred one case of cholera, and there was no further spread. The fact that no inoculations were made in Bay again makes it impossible to draw conclusions.

In view of the great difficulty in vaccinating large numbers of persons, it is problematical whether vaccination, with a view to suppressing cholera will ever be a thoroughly practical measure, especially in view of the fact that it is not thought to afford protection for a longer period than six months. It is quite probable, however, that prophylactic inoculations against cholera will be of some assistance in stamping out the disease in the future. It will also be valuable in affording those who desire to be protected from cholera an opportunity to come forward and be inoculated. This will apply especially to sanitary inspectors, physicians, and others whose work is at short range with the disease.

CONCLUSIONS.

(1) From the evidence obtainable at this time it is impossible to state whether the cholera was reintroduced into the Philippines or whether it remained here in some latent form during the year and a half in which no cases were detected.

(2) While there is no evidence to show that the disease spreads by other means than that of enteric fever, yet the rapidity with which it makes its appearance in many widely separated places puts it in an entirely different class so far as combating it successfully is concerned.

(3) That maritime quarantine can practically insure the prevention of its spread by sea.

(4) That it is practically impossible to make land quarantine effective, hence it is useless to engender the opposition with which it is usually met, and the time and money required by quarantine will yield much better results by the education of the public as to the manner in which the disease spreads.

(5) That education of the public is a much more effective measure in the suppression of cholera than methods that depend upon force for their application.

PLAGUE IN THE PHILIPPINE ISLANDS.

Measures for combating and eradicating plague from the Philippines have been steadily carried out since the first appearance of the disease in 1899. It is satisfactory to report that during the past three years there has been a steady decline in the number of cases, and for the year ended June 30, 1906, only 22 cases and 18 deaths were reported. This is a material reduction over the number reported for last year. Much of the credit for this satisfactory condition of affairs can no doubt be attributed to the permanent sanitary improvements that have been made in the houses located in those districts in which most cases of plague were heretofore found.

From December 26, 1899, to June 30, 1906, a period of about six and a half years, 1,100 cases of plague have been reported in Manila, of which 938 were fatal, giving a case mortality of about 85 per cent. The only other places known to have been infected are Cavite, Naic, and Cebu, from which 71 deaths from plague were reported for the same period as stated above for the city of Manila.

For the first time in a period of over a year, infected rats were found in a number of sections of the city during the month of March. In view of the statements recently made by Professors Kitasato and Shiga, of Japan, that an outbreak of human plague can almost be predicted with certainty within a period of sixty days from the time the first infected rats were found, it is very satisfactory to report that even though ninety days have elapsed since infected rats were first detected, so far not a single case of human plague has occurred, and no plague-infected rats have been found for a period of thirty days.

Upon the discovery of plague-infected rats, most active measures were taken for its suppression. A large force of rat catchers was employed which operated all over the city, the idea being to ascertain the extent if the infection. Radiating lines were drawn from the infected center to the outskirts of the city, and rats were caught in all sections of the city covered by the lines in question. It was soon learned that the infection among rats was confined to two centers—one in the district of Binondo, in a large block which is bounded by Calle Rosario and the Escolta, and the other a small block situated on Calle Principe, in the district of San Nicolas, in which neighborhood much plague has been encountered heretofore.

A large number of rat catchers were sent into these infected centers and, so far as possible, all rats were caught and destroyed. The thorough disinfection of the whole infected area was then commenced. All goods were moved to make sure they harbored no rats, and everything, unless entirely new and unused, was thoroughly disinfected with a bichloride solution. This work was continued, story by story, until the ground floor was reached, after which the entire premises surrounding the building were cleaned up. Woodpiles were found to be favorite harboring places for rats, and these were invariably torn down and replaced upon sites that had been previously made rat proof. All rat runs were destroyed, drain and open spaces connected with buildings or infected premises were cemented, and other repairs made which seemed to be indicated. This work occupied almost two months' time, but so far the results that have been obtained have fully justified the outlay.

The results obtained with plague in the city of Manila during the past year are particularly satisfactory, when it is remembered that the number of cases of plague in Hongkong and Canton this year has been much greater than has occurred in previous years. Several cases of plague were detected on foreign steamers that entered the harbor, but the effective measures which were taken by the quarantine service have prevented the reinfection of the city.

It is extremely regretted that exact knowledge with regard to the transmission of this disease has not been materially enhanced during the year, but the experience of the Bureau of Health, on the whole, during the past few years may be stated to point to the fact that the same measures which result in the eradication of rats, mice, and other vermin usually prevent the transmission of plague.

VACCINATION.

During the year 950,125 persons were vaccinated by regular vaccinators employed by the Bureau of Health, and reports have been received that 295,768 persons were vaccinated by provincial and municipal officials, which makes a grand total of 1,245,893 persons vaccinated for the year. There were 2,180,692 units of vaccine virus distributed. Of the 950,125 vaccinated by regular employees of the Bureau, there were 345,227 known "takes."

The provinces which have been systematically and completely vaccinated are Cavite, Rizal, Laguna, Bataan, Tablas, Cagayan, Isabela, Ilocos Sur, and the Island of Siquijor. The provinces which have been almost completely covered are Ilocos Norte, La Union, Batangas, and Cebu, and much work has also been done in many other provinces. In all, there have been 1,849,394 systematic vaccinations performed, which leaves a balance of 4,656,827 yet to be done. At the present rate of progress this will require about four and half years.

Steps have also taken, particularly in those provinces which have been systematically vaccinated, to require the local officials to vaccinate the newborn children. If this latter work is done properly the day should not be far distant when smallpox will disappear from the Philippines.

For the first time in the history of the Philippine Islands glycerinized vaccine lymph, in quantities and in such condition that it retained its effectiveness, was delivered into the interior of the Province of Lepanto-Bontoc. Sixteen hundred and nine successful vaccinations are known to have resulted, whereas only failure has been encountered heretofore. This feat was made possible by the Benguet road being opened and in good condition throughout its entire length. The vaccine was shipped on ice, and, for instance, if it left Manila on Saturday morning it would reach Baguio by Sunday noon. Here it would be removed from the ice, wrapped in wet leaves or some other cooling substance, and an Igorot runner would deliver it in Cervantes inside of three days. From experience it has been found that vaccine, in the hills, will retain its potency about ten days, so that, in the instances cited above, there remained almost one week during which it could be used effectively. The question of transporting vaccine into the interior still remains a very serious one, and not much has been accomplished during the year toward its solution.

A few hundred dry points were made by the Bureau of Science as an experiment, but in view of the fact that out of ten previously unvaccinated children who were vaccinated with the points that were received fresh from the laboratory there were no "takes," it is of course obvious that no results could be expected after they became older and were transported to the provinces.

The glycerinized virus that was supplied by the Bureau of Science during the year was superior to that furnished in previous years, as shown by the high percentage of "takes." Last year the percentage was 33 per cent and this year it reached 47.22 per cent.

In briefly summarizing the vaccination work for the year, it is satisfactory to report that in spite of the fact that the services of many employees engaged in vaccination work have had to be withdrawn for weeks at a time, in order to assist with the suppression of cholera, yet 238,689 more persons were vaccinated for an outlay of about ₱24,000 less than has heretofore been the case in any one year.

LEPROSY, AND THE CULION LEPER COLONY.

It becomes the very pleasant duty of the undersigned to report that during the year the first steps were taken, which, when completed, give promise that leprosy may be finally eradicated from the Philippine Islands. For the past several hundred years the care of those who were unfortunate enough to contract leprosy has received considerable attention in the Philippines, but a careful review of the history shows that this work was more or less of a charitable nature and was not carried out in such a way that the final disappearance of the disease could be hoped for. It was the practice to admit to leper hospitals those lepers who were unable to earn a living or who had no one to provide for them. This left many lepers at large who had not become public charges, and in consequence there was ample opportunity for the disease to spread indefinitely. It was for the purpose of providing complete isolation that plans were made almost at the inception of the present civil government to set aside an island for this purpose, but it was not until this year that they had advanced sufficiently far so that a start could be made toward assembling lepers at that place.

The construction of the Culion leper colony, situated on the Island of Culion, which has been set aside for this purpose, reached a point during the month of May at which 800 lepers could be cared for. Of this number about 500 are already at Culion. The remaining 300 vacancies will be filled as soon as funds provided by the current appropriation bill for the purpose become available.

It is variously estimated that there are from 4,000 to 5,000 lepers in the Islands. It is furthermore estimated that it would require an expenditure of about 50 centavos (25 cents, United States currency) per capita per day, by the Government, for subsistence, material for houses, clothing, transportation, administration, etc., to maintain them all. In round numbers, an annual outlay of about ₱800,000 ($400,000, United States currency) would be required. The Government at the present time could scarcely support a fixed charge of this size.

If the immediate segregation of all the lepers in the Islands would be an absolute guarantee that no further cases would occur, it would no doubt be advantageous from a business standpoint to borrow money and segregate them at once, because in a few years the charge would be entirely eliminated, but in view of the fact that there is not sufficient medical evidence to the effect that segregation would cause the complete disappearance of the disease a loan for this purpose would scarcely be justified. . Fortunately, however, the geography of the Islands is such that the present finances and the demands of practical medicine can both be met to a reasonable degree.

The present plan is to move all the lepers from those islands which are well isolated, and at the same time have only comparatively few victims.

In this way a large amount of territory or area can be freed of lepers at once, and the principal source of infection being removed, there should be few persons attacked in these sections in the future, and the few cases that do occur can be immediately removed. It is contemplated that only such persons shall be declared lepers as by microscopical examination are found to have the bacilli of leprosy in their tissues.

The lepers from the Islands of Mindoro, Masbate, Romblon (which includes Tablas and other islands under the same provincial government), Siquijor, Oriental Negros, Occidental Negros, Palawan, and Cuyo have already been moved. One noteworthy fact was observed while the lepers were being collected from the islands mentioned above, viz, only about one-half of those who were previously reported as lepers were, on careful examination, found to be afflicted with the disease. If this same proportion should be maintained in the remaining islands the number of actual lepers would be much smaller than has been estimated and the solution of the leprosy problem would not be nearly so serious a matter as first appearances indicated.

The question of the lepers contributing something toward their own support has received most careful attention, but on closer observation of this matter it has been ascertained that not much assistance in this direction can be expected. The disease soon produces such contractions of the limbs, destruction of tissues, losses of fingers and toes, nervous involvements which result in loss of muscular power, general debility, etc., that only a small proportion of them are capable of performing that amount of manual labor which would be required by the agricultural operations which would result in supplying food for themselves. While there are many lighter occupations which a fair percentage are capable of engaging in, yet the things which they would produce would not be of a kind that would be of use to themselves, and the repugnance which the public has for things handled by lepers, even though rendered safe by sterilization, would preclude the possibility of selling them at a profit. Then again, so many of them are entirely bedfast, and the wounds and ulcers of others require so much attention, that a good proportion of the services of those not yet so badly afflicted must be devoted to those not so fortunately situated. Domestic duties, cooking, making clothes, keeping house, cleaning, and taking care of streets, making repairs to buildings, etc., requires the entire time of many more, so that the sum total of the remaining effective labor is very small.

The question of raising cattle is now being considered. It would appear that this should be a light occupation in which they would be successful. On account of the fact that cattle do not contract leprosy, that they could be slaughtered by nonleprous persons, and that the meat is necessarily cooked before being eaten, it would seem that the public would not object to such meat being placed upon the market.

The actual collection and transference of the lepers who are already at Culion did not present as many difficulties as was at first anticipated. On account of the fact that it was desirable, for administrative reasons, to reduce the number of places at which lepers were kept as soon as possible, it was decided to remove those lepers who have heretofore been maintained at the San Lazaro Leper Hospital in Cebu and discontinue the latter institution. Accordingly, May 22, 1906, Medical Inspector Goff and the undersigned proceeded with the Coast Guard cutters *Polillo* and *Mindanao* to Cebu. With the assistance of Medical Inspector Pond, who was acting president of the provincial board of health of Cebu at that time, the lepers were transferred by lighters from the leper hospital to the boats. A total of 365 were distributed between the two vessels. The vessels sailed from Cebu May 27, and an uneventful trip was made to Culion, the latter place being reached on the afternoon of May 28. The medical officer in charge of the colony had made all the necessary arrangements to receive the lepers. Four sisters of charity, belonging to the order of St. Vincent de Paul, were already on duty at the hospital, to act as nurses for those who required more or less medical attention. A priest of the Jesuit order, Father Valles, was also already stationed at the colony and aided in receiving the lepers. The latter were very much surprised and delighted with their new quarters and expressed themselves as being thoroughly satisfied with the provision that had been made for them.

The present colony consists of about 125 new nipa houses, each of which is large enough to accommodate from five to seven lepers. These houses have been built on regular street lines, so that a regular town has resulted. The site of this new town is located on a high point which slopes in nearly all directions to the sea, the highest portions being about 150 feet above sea level, the drainage, in consequence, being excellent. A reservoir is located at a height of over 230 feet above sea level, and water from a spring is pumped up to it by a gasoline water pump. From there, the water flows to all parts of the new town through the system of water pipes which has been laid. The necessary bathrooms, modern flush closets, and wash places for clothes have been provided. A complete sewage system, which empties into the sea after passing through septic tanks, has been provided to carry away all sewage. Musical instruments have been provided, so that a band of 40 pieces can be organized.

The old town of Culion, of which a number of good houses yet remain, which were purchased from former residents, affords buildings for a presidencia or town hall, and places of residence for the presidente and consejales. An excellent stone church, which had already been built in Spanish times, is now in good repair, and can be used by the inhabitants of the colony.

The lepers are given all possible liberty, and are, to a large extent, controlled by regulations which they themselves made. They are allowed to punish offenders against their own regulations in any manner they see fit. In order to give them a proper form of government they were permitted to elect their own presidente and ten consejales. A police force composed of 12 men has also been organized, and it is their duty to see that the town is kept in good sanitary condition as well as to make arrests of offenders against their own ordinances.

Quarters have been provided for nonleprous employees on the other side of the hill from the colony and about a quarter of a mile distant. The director of the colony lives in a house which is situated across an arm of the bay, about 2 miles distant, and can readily be reached by the launch which is kept at the colony.

After the lepers from Cebu had been transferred it was next decided to remove those from the Islands of Mindoro, Romblon, Masbate, Siquijor, Negros, Palawan, and Cuyo. Advantage was taken of the fact that about the middle of June the Secretary of the Interior was making an inspection of the Province of Mindoro, on which trip he circumnavigated that island. On account of his calling at many small ports, Medical Inspector Goff was detailed to accompany him, with instructions to collect all lepers on the island, if practicable. It was not possible to collect them all at once, but the work progressed sufficiently far so that after the Secretary of the Interior returned to Manila it was only necessary for Dr. Goff to call at two ports in order to secure them all. In the meantime, instructions were sent to the local health officials of the other islands directing them to assemble all lepers in their respective provinces at one seaport. This was fairly well carried out, and Medical Inspector Goff, who was in charge of the collection of the lepers, was able to make a quick trip, calling at the ports of Romblon, Masbate, Capiz, Dumaguete, Bacolod, and Cuyo. He arrived at Culion on the evening of July 4 with 125, only one leper having died en route. On the previous trip from Cebu to Culion no deaths took place. In another portion of this report attention has already been invited to the fact that not nearly all the persons who were alleged to have leprosy were found to be really afflicted with this disease. Medical Inspector Goff had with him a complete microscopical outfit, and whenever any cases were presented in which the diagnosis was doubtful, a microscopical examination was made, and unless the leprosy bacilli were found the case was not taken. In this way the number was reduced to at least one-half of that originally reported.

TREATMENT OF LEPROSY WITH THE X-RAY.

The treatment of leprosy with the X-ray, which was reported in the last annual report and which gave so much promise, could not be continued during the year on account of the lack of suitable apparatus and the impossibility of replacing it with new before the close of the year. The two lepers reported by Dr. H. B. Wilkinson in the last annual report as having been apparently cured of leprosy relapsed, and leprae bacilli are again present in the skin scrapings taken from places at which lesions existed before. One of them remained well, so far as it was possible to determine by frequent microscopical examinations, from June 6, 1905, until the first week in March, 1906, and the other from August 11, 1905, until about the middle of February, 1906, lepræ bacilli being again found in both cases on the last dates mentioned above.

It is of course impossible, with our present knowledge, to state whether there would have been a return of the disease if the treatment could have been extended over a longer period of time. Another important question to be considered is whether these cases actually relapsed or whether they were reinfected. Owing to the fact that they came into more or less contact with other lepers in the institution during the time they remained free from lepræ bacilli makes it quite possible that they might have been reinfected, but the experience in the treatment of leprosy in Germany and in the case treated by Army medical officers in the United States would indicate that it is more probable that our cases relapsed.

STATISTICAL AND OTHER OBSERVATIONS IN CONNECTION WITH PULMONARY TUBERCULOSIS IN THE CITY OF MANILA.

The deaths registered from pulmonary tuberculosis for the fiscal year ended June 30, 1906, were 1,209, or an average of 5.49 per thousand inhabitants. This mortality is considerably higher than that of various countries of Europe and America from the same cause, as may be seen from the following table:

Place.	Year.	Mortality per 1,000.
State of New York	1890	2.47
State of New Jersey	1890	2.34
State of Rhode Island	1890	2.67
District of Columbia	1890	3.59
Buenos Ayres	1901	1.91
Naples	1901	2.12
Madrid	1901	2.32
Cairo	1901	2.27

The high death rate registered in the city of Manila from pulmonary tuberculosis is only approached by that of Calcutta, which, although apparently lower with respect to the males, among Mohammedan women has reached 4.6 per thousand. This high rate may be due to the domestic conditions under which they live, but this latter explanation can not be applied to the cases in Manila. Here it is more likely due to racial predisposition. The appearance of the majority of Filipinos indicates that they are of the phthisical type—a long neck, narrow and flattened chest, sloping shoulders, and poor development of the pectoral muscles are common features, so prevalent in both sexes that they seem to have become the physical characteristics of the race.

The lack of proper exercise among Filipinos and the poor quality of food taken by the lower classes often causes organic weaknesses which are favorable to the development of tuberculosis. The habit, common to both sexes, of tying the clothing tightly around the waist, is believed to be the cause of digestive disturbances which are responsible for a poor physical type. The habit of smoking, which is so general among the Filipinos, also weakens them physically, and their carelessness and indifference with regard to spitting multiplies the danger of infection. The custom of eating with the fingers, and the use of the clothing that was formerly worn by a deceased member of the family, in connection with the poor hygiene observed in domestic life, are all facts which tend to explain the rapid extension of tuberculosis among the natives.

It has been asserted on good authority that there is scarcely a native family that has not lost at least one member from this disease or contains someone afflicted with it.

How can this be remedied? This is a difficult matter, because the mere suggestion of interfering in any way with the home life of the people would cause storms of protest. On the other hand, we realize that without their coöperation any efforts tending to suppress or prevent its propagation would prove unsatisfactory and be doomed to failure. The Filipino physicians have now a great opportunity to render an invaluable service to their country by advising the people and recommending to them measures and means directed against the spread of the disease. With very little cost the hygiene of domestic life could be very much improved. Efforts made along this line would be well rewarded by the greatly decreased mortality which would be sure to result.

For the present the prohibition to spit in public places, which has been included in the proposed Sanitary Code for the city of Manila, and which is now in the hands of the Municipal Board, should tend to diminish to some extent the propagation of the disease. The placing of spittoons with disinfectants, in the churches, in places of entertainment, such as theaters, cockpits, race tracks, and in railway and street cars will also help to attain the same end. The free distribution of disinfectants to the poor who have contracted the disease is already being carried on. The construction of more houses for the poor, similar to those which have been built in the district of San Nicolas, should be encouraged.

And finally, a proper course of instruction in sanitary matters, including the prevention of pulmonary tuberculosis, in the primary schools of the country, will, in the course of time, as the teachings are gradually introduced in every home by the pupils, prevent the further spread of this terrible, though not so dreaded disease, and avoid the unnecessarily large sacrifice of lives for which it is accountable.

THE SANITATION OF BILIBID PRISON.

The fact that the first case of cholera of the outbreak which occurred in Manila in August, 1905, was found in Bilibid Prison, has already been mentioned in the article upon cholera which appears in another portion of this report. When it was found that the number of cases in that institution kept steadily increasing, and after 27 cases had occurred it was deemed advisable by the Governor-General that the Board of Health, which had many more resources at its command than were at the disposal of the prison physician, should assume charge of the sanitation until such time as cholera could be eradicated from the prison. This latter object was attained in three days after the Board of Health took charge, and proved to be most simple in its accomplishment. The result was obtained by screening off the latrines and providing vestibule entrances thereto, so that flies could not pass from the latrines to the food which was served to the inmates. Practically all other measures for its suppression had been taken before the Board of Health assumed charge. The latrines in question were being filled with sufficient disinfecting solution to keep the level well above the contents, but this did not prove effective in this instance, because in all probability some of the solid stools deposited contained cholera organisms and the fecal matter floated on top of the disinfecting solution without being entirely immersed. A fly could alight on this floating mass, contaminate its feet, and from there, no doubt, during mealtimes, would pass to the food of the inmates, only a few meters away.

The outcome of the work of the Board of Health received much favorable comment, and when Act No. 1407 was passed, which reorganized certain Government Bureaus, it contained a provision which placed the then Bureau of Health permanently in charge of the sanitation of Bilibid Prison from November 1, 1905.

A study of the sanitary history of the prison since American occupation showed that there had been a steady increase in the death rate in the institution. In 1903 the death rate was 72 per thousand; in 1904, 118 per thousand; and at the time this Bureau took charge, in September, 1905, it had reached the extraordinary figure of 438.61 per thousand for the month.

Judging from the small amount of air space available per capita it is believed that one of the principal causes for the high mortality is overcrowding. There were, however, a number of subsidiary cases, which are believed to be important factors. As it was impossible to relieve the overcrowding immediately, these causes were attacked vigorously, so far as practicable. It is satisfactory to report that the death rate, on the whole, has been steadily declining. In August it was 191.79; in September, 438.61; in October, 126.86; in November, 128.08; in December, 64.24; in January, 43.28, and in May it was 66. There was an apparent increase in the morbidity, but this is accounted for by the fact that every effort was made to have prisoners present themselves for examination when sick. In this way many recruits for the hospital were found, and in view of the fact that the death rate was materially reduced, it is quite probable that more cases than heretofore came under observation at a stage of the disease at which it was yet possible to render effective aid.

Among other causes of high mortality are believed to be the insanitary system for the collection of night soil and other discharges. Pails or tubs are distributed throughout the sleeping quarters of the inmates. The persons using them have to perch, often in numbers as high as three and four, on the rim of the receptacle, much in the same manner as birds. On account of the large number of persons in the buildings, these tubs are almost constantly in use, and it is almost impossible to keep covers on them, on this account. The fouling of the atmosphere by the gases which escape can be readily appreciated.

Another most undesirable feature are the present bamboo bunks. These latter harbor all sorts of vermin, from which it is almost impossible to keep them free. Bedbugs and even rats and mice are frequently found in the hollow bamboo. Although very rare outside of the prison, pneumonia is one of the common causes of death within the prison, and it is believed that these bamboo beds are in part indirectly responsible for many of the cases, since many prisoners prefer sleeping on the cement floors, where the air is most vitiated, to sleeping on the prison bunks.

In order to correct these conditions recommendation has already been made to the effect that each prisoner should have at least eight and one-half cubic meters (300 cubic feet) of air space, that flush closets be installed, and that the bamboo bunks be replaced by steel frame bunks, the bottoms of which are to be of canvas or some other suitable material which can be readily disinfected. If these improvements are installed properly, it is not unreasonable to predict that there will be another decided decrease in the mortality rate.

A proper prison hospital should also receive immediate consideration. The present quarters are miserable makeshifts. The wards and rooms are dark and poorly ventilated, and, like the remainder of the prison, it is very much overcrowded. At times the beds must be placed so close together that it is difficult to pass between them. It is poorly equipped also, but ample provision has been made by the Commission in the current appropriation bill to remedy this defect.

The tuberculosis hospital, known as Hospital B, which is maintained outside of the prison, in another section of the city, is also poorly adapted for the treatment of tuberculosis. It lacks the three most essential factors in the successful management of that disease, namely, (1) sunshine, (2) a good supply of fresh air, and (3) elevation. It is located on the banks of the Pasig River, on a low, damp site, from which air and sunshine are excluded by tall buildings. However, it must be remembered that it is very difficult to obtain a suitable place near Manila, and the present location was no doubt chosen because it was an improvement upon the quarters that were available at Bilibid.

In conclusion, attention is respectfully invited to the fact that the mortality in this prison is much higher than it should be, and the putting into effect the measures already recommended in this report for reducing the death rate should receive immediate consideration.

SAN LAZARO HOSPITALS DIVISION.

The San Lazaro Hospitals division during the year has rendered excellent aid to hundreds of unfortunates. The hospital is gradually going through a stage of evolution, and becoming one of the most modern institutions of its kind. The facilities for the treatment of cholera, plague, and smallpox are entirely in accordance with modern practice, and are probably not surpassed in any similar institution in any portion of the world. The medical officers in charge of the San Lazaro Hospitals during the past year have done much to make attractive not only the hospital but the grounds as well. With its beautiful lawns and shrubberies it is probably one of the most attractive places in Manila.

The statistical tables of this division will be found in the appendix.

CIVIL HOSPITAL DIVISION.

The total number of cases admitted for treatment during the year was 1,523. Of these, 923 were Americans and Europeans, and 534 Filipinos, 26 Chinese, Japanese, and East Indians. There were 1,272 male patients and 251 females, who may be further classified as 890 pay and 633 free patients. Among the latter are included emergency cases and civil employees whose salaries do not exceed ₱80 per month. One thousand four hundred and seventy-two persons were treated by the Civil Hospital staff and 52 by outside physicians. The total number of deaths which occurred was 34, which gives a death rate for the twelve months of 2.23 per cent of all patients treated. If eight patients who were received in a dying condition, are subtracted from the total, the death rate falls to 1.49 per cent of the total admitted.

The total number of days spent in the hospital by all patients was 24,468. The work for 23,661 days was done by the hospital staff.

The medical officer in charge, with the assistance of two house surgeons, prescribed for 15,700 patients. Three thousand and fifty calls were made upon patients outside the hospital and 47,322 in the hospital. The total number of prescriptions filled in the hospital dispensary was 7,684. The total number of dressings done in the operating and dressing room was 10,367. About 850 minor operations were performed upon patients not confined to the hospital.

The personnel of the Civil Hospital consists of the medical officer in charge, 2 house surgeons, an additional surgeon who receives board and quarters in return for his services being available for emergency cases, 1 pharmacist, 1 superintendent, 1 clerk and interpreter, 1 chief nurse, 1 dietist, 12 other female nurses, 7 male hospital attendants, 2 native male hospital attendants, 4 Chinese cooks, and 32 servants.

The total receipts for the fiscal year 1906 were ₱38,211.57.

The present quarters of the institution are entirely inadequate, both for hospital purposes and for the purposes of housing the employees who are connected therewith. Plans are now in course of preparation for a new Civil Hospital, and it is contemplated that before another year passes the construction of the same will be well under way.

Statistical tables, showing diseases treated, will be found in the appendix.

BENGUET SANITARIUM DIVISION.

During the period covered by this report several changes of importance have been introduced, modifying materially the character of the institution, its equipment, and the nature of the work performed. These will be mentioned in the order in which they occurred.

Authority having been obtained from the honorable the Secretary of the Interior to use cottage No. 1 as a sick pavilion, the ward patients were transferred from the main building of the sanitarium to this cottage about September 15, 1905. This arrangement, removing the sick and all the hospital work from the hotel building, has been found to be a great improvement, giving greater freedom to the guests and affording a much-desired privacy and quiet to those who are really sick, as well as providing more suitable quarters where the increasing number of outdoor patients may be treated with greater facility.

Pursuant to section 5, subsection (*b*), Act No. 1407, the Civil Sanitarium on November 1, 1905, became a division of the Bureau of Health, working under the supervision of and reporting to the Director of Health. In this readjustment of the administration advantage has been taken of every opportunity to simplify the business system and eliminate all unnecessary work. Requisitions for supplies have been filled more promptly and satisfactorily; the division has been furnished with history forms and clinical charts uniform with other divisions of the Bureau of Health, the latter having greatly facilitated the making and keeping of complete histories of cases treated in the sanitarium.

By virtue of a contract effective March 1, 1906, the Government of the Philippine Islands leased the main building of the sanitarium, with its furnishings and adjacent grounds, to Mr. C. M. Jenkins, to be used for hotel purposes. Thus there has been provided a first-class hotel where the general public may come for rest, recuperation, or pleasure, as the case may be; those guests who may need medical attention but who do not desire to enter the hospital may be treated at their room in the hotel, provided that they are not suffering from a dangerous or communicable disease.

Since the opening of the main building as a hotel on March 1, of the present year, cottage No. 5, formerly assigned to the chief of this division for quarters, has been utilized as quarters for some employees and also as surgeon's office, those employees who could not be accommodated there occupying rooms over the storerooms in a building some distance from the hospital. Changes have been made in cottage No. 1, increasing the space and light in the ward and adding two rooms, one of which is used as the superintendent's office and the other as a pharmacy. The building has also been repainted throughout and the doors and windows repaired.

The most important addition to the equipment has been the installation of a complete sterilizing apparatus, consisting of two water tanks, autoclave, and instrument sterilizer, with separate petroleum burners for each, all assembled in convenient relation on one frame.

During the eight months from July 1, 1905, to March 1, 1906, when the main building was opened as a hotel, there were four classes of persons accommodated at the sanitarium, namely, guests, their servants, patients, and the employees of the institution. Of all classes except employees there were 669 individuals registered during the above period. The general daily average of the various classes was as follows:

Guests and their servants	16.34
Patients	9.91
Employees	20.34

Or a total general average of 45.59 perons subsisted daily.

The highest total daily average was reached in the month of November, 1905, with 52.17 guests, servants, and patients; during the same month the daily average of employees being 27. Since March 1, 1906, there has been a daily average of 9.87 patients in the hospital, and 10.52 employees. For the month of June, 1906, there was a daily average of 10.67 patients in the hospital and 10.47 employees. The above figures do not include members of the Commission and their families, who occupied cottages on the sanitarium reservation, or those persons treated since March 1 of the present year in the hotel.

The table in the appendix will show that the total number of patients treated in the hospital during the fiscal year 1906 was 151. Of these, 31 were Americans and Europeans, 85 Filipinos, 31 Japanese, and 4 Chinese, coming from almost every province in the Philippines. The larger number of Americans and Europeans, however, came from Manila, while most of the Orientals were employed on public works in the vicinity of Baguio.

Eight deaths have occurred during the year; 1 Chinaman who was injured in an accidental explosion died a few hours after admission; 1

Chinaman and 1 Filipino died of chronic catarrhal dysentery; 1 American negro and 1 Filipino woman died of general sepsis; 1 Japanese, 1 Filipino, and 1 Igorot died of malarial fever.

Other tables will be found in the appendix classifying the diseases treated outside the hospital and showing the number of laboratory examinations made, vaccinations, Philippine Constabulary examinations for enlistment, surgical dressings done in operating room, prescriptions filled, and visits made.

General sanitary inspections have been made; the laborers' camps have been visited and foremen instructed with regard to the disposal of refuse, the protection of the water supply, and in the prophylactic treatment of malaria.

DISEASES TREATED IN SANITARIUM.

Malaria.—As a cause of disability malaria heads the list, 26 cases having been treated, of which two died and one left without permission. Many of these cases came from a distance; one from Twin Peaks, 18 miles away, and others from Antimok, about 5 miles in another direction, Twin Peaks being 3,874 feet and Antimok 1,783 feet lower than Baguio. One of the fatal cases had been sick for three months and died a few hours after admission; another was a most severe infection, at least two-thirds of the corpuscles being occupied, some of them containing as many as three parasites. There were fifteen of the tertian, three of the æstivo-autumnal, and one of the quartan variety, seven cases being undetermined.

Dysentery.—Ten cases of amœbic dysentery have been treated, seven chronic and three acute. Eight of these were cured and two improved.

No special line of treatment has been followed, but each case has been managed according to its particular requirements.

The great value of the climate of Baguio in the treatment of amœbic or chronic catarrhal dysentery has been well demonstrated, as all cases treated here have been either greatly benefited or cured. The opinion held by some, however, that one month in Benguet will cure a case of dysentery of six months or one year's duration is incorrect, the average period of treatment of such cases being sixty-five days.

Seven cases of catarrhal dysentery have been treated, four of which were cured, one improved, and two died. One of the latter was a Chinese, an opium smoker who had been unable to obtain the drug for two weeks before applying for treatment, and was unconscious when admitted.

Intestinal parasites.—Systematic examinations have shown that intestinal parasites are extremely common. Of 131 cases examined, 97 were found to be infested with one or more varieties; only 18 of the cases required treatment for this condition alone; the remainder being observed in the course of routine examinations and receiving treatment while in hospital for some other cause. Twenty-nine parasites was the largest number recovered from any one of the 32 cases of uncinariasis, none of which were severe. The four cases infested with *Opisthorchis sinensis* applied for treatment for other diseases and presented no characteristic symptoms.

Of all diseases treated, chronic dysentery, either amœbic or catarrhal, responds to the beneficial effects of a change from the lowlands to the cooler climate of Baguio most noticeably, but general debility, whether secondary to previous disease or induced by overwork and long sojourn in a warmer climate, is almost equally benefited by a timely change to the higher altitude and more bracing atmosphere.

Nervous diseases, such as melancholia and neurasthenia, are not greatly benefited except in the early stages, and unless the improvement is prompt such cases should be returned to the United States when possible.

WEATHER STATISTICS.

The accompanying table of weather statistics for the twelve months ending June 30, 1906, has been condensed from data furnished by courtesy of the local observer of the Weather Bureau, Mr. Gregorio Galvan:

	°F.
Highest official temperature during year (on March 28, 1906)	81
Lowest official temperature during year (on November 8, 1905)	41.4
Highest monthly average or mean temperature (during the month of April, 1905)	74.78
Lowest monthly average or mean temperature (during the month of February 1906)	42.80

There were 149 days during the year in which rain fell, and the rainfall for the period reached a total of 194.33 inches. The highest monthly rainfall was 53.31 inches, in May, 1906; and the lowest 0.03 inch, in February, 1906. The maximum rainfall in twenty-four hours was 23 inches, on August 29, 1905.

While no appropriation was made for the improvement of the sanitarium grounds, the boys employed in routine outdoor work, when not required at their regular duties, have applied all available time to repairing roads, walks, and drains, and to the transplantation of ornamental plants and shrubs. By means of stone retaining walls and fills, a wagon road has been constructed around the front of the main building, enabling all vehicles to approach by the main entrance, this obviating the confusion experienced last year, when the stages arrived at the back of the building where there was insufficient room for baggage and passengers.

The food supply, always of importance in the treatment of the sick but more especially so in the Tropics, has been more satisfactory this year than heretofore. The experimental station of the Bureau of Agriculture at La Trinidad has furnished a large variety of fresh vegetables of first-class quality, which, in addition to the vegetables, poultry, and game supplied by the natives and fresh meats, fish, and butter brought from Manila and Dagupan, make it possible to provide diet suitable for any case in the hospital.

Recommendations.—The officer in charge of the division has invited attention to the poor facilities that have existed since the main sanitarium buildings were turned over to private persons for hotel purposes. The present accommodations were entirely inadequate, and it was understood when the former buildings were given up that provision would be made for better facilities. At the present time plans are actually being drawn for a hospital suitable for the needs of the division. It is believed that the Commission will appropriate the necessary funds for its construction during the year.

SANITARY ENGINEERING DIVISION.

The number of orders issued during the fiscal year for the improvement of effective drainage, leaking vaults, proper systems for the disposal of excreta and urine, defective light and ventilation, defective plumbing, etc., has been greatly in excess of the number issued during the preceding year, and whereas in the previous fiscal year only about 50 per cent of the orders for work issued were completed, this year about 80 per cent of those issued have been complied with. This result was brought about in spite of the fact that the time of the sanitary inspectors detailed for duty in the sanitary engineering division was much taken up in combating cholera.

Three hundred and fifty buildings were recommended for removal but very few were actually removed, and as the matter now stands it is practically impossible to secure the razing of condemned houses; even in cases in which the Municipal Board has authorized the removals the Advisory Board has frequently taken the matter up and secured a reversal or a postponement. In other cases injunctions were granted by the court.

The barrio of Rosario, in the district of San Miguel, in the condemnation of which the police department, the fire department, and the Bureau of Health concurred, and which is notoriously one of the most insanitary sections of the city, could not even be brought about.

A good portion of the time of the chief of the sanitary engineering division was taken up with work at the Culion leper colony, and during the latter part of the fiscal year he superintended, in person, the construction of a number of buildings and other installations for nonleprous employees. Considerable time was also required in providing for the sanitation of the Mariquina Valley in order to prevent the Manila water supply from becoming infected with cholera.

A small office detail which has given considerable satisfaction was the making of plans and specifications for the installation of the various sanitary appliances which are at present required. Cuts were made and the same printed in the form of circulars, and comprise the construction of (1) septic absorbing vault, (2) septic discharging vault, (3) septic absorbing and discharging vault, (4) dry-earth closets, (5) tight vault without seats, (6) dry-earth vaults for 2 or more stories, (7) absorbing basin, (8) absorbing and discharging basin, (9) pocket filter basin, (10) smoke hood.

The statistical tables for this division will be found in the appendix.

SAN LAZARO LEPER HOSPITAL, CEBU.

This institution was officially closed May 22, 1906, and the lepers transferred to the Culion leper colony.

The statistical tables for this division will be found in the appendix.

PROPERTY DIVISION.

The division of property not only is accountable for the property of the Bureau, but it also performs the functions of a shipping office. The forwarding of supplies to the various institutions in the city and throughout the Philippine Islands requires the most detailed supervision, because many of the things are either drugs or technical apparatus and the average employee is not familiar with them, and errors are very likely to occur.

The merging of two other complete Bureaus and the partial service of another with the Bureau of Health caused a great increase in the amount of work for the property division.

The shipping of vaccine to the provinces, which has heretofore been in charge of a sanitary inspector, was also transferred to the division of property, and, when it is remembered that this one item alone amounted to 2,180,692 units, the entire work done by this division will be better appreciated.

The consolidation under this Bureau of the furnishing of Government medicines and medical supplies for the entire Islands, where all requisitions are passed upon by a medical man, has resulted in great saving to the Government (1) by the elimination of useless drugs; (2) by using the surplus which has accumulated in one place to fill the requisitions for another, thus also insuring much fresher drugs than heretofore. A standard supply table has been prepared, thus securing greater uniformity in requisitions.

CLERICAL DIVISION.

The efficiency of the division has been greatly impaired by the loss of three of its oldest and most valuable employees, due to the resignation of two and the absence on extended leave of a third.

Taking into consideration the size of this Bureau and the extent of its operations, the work has been performed with a comparatively small force. When the reorganization of the Bureau was in progress, after due consideration, it was decided to recommend the following personnel for the fiscal year 1906, for the clerical division, which recommendation was allowed by the Commission, being a saving of over ₱20,000 per annum over the personnel allowed for the fiscal year 1905. These figures are all the more remarkable when it is remembered that the efficiency of the division was increased and that in addition a large amount of clerical work was added by the merging into the Bureau of Health of two other complete Bureaus and the partial merging of another.

1 chief clerk	₱4,500
2 clerks, at ₱3,200	6,400
1 clerk	2,800
1 clerk	2,400
3 clerks at ₱1,800	5,400
1 clerk	1,080
1 clerk	600
1 clerk	480
5 employees, at ₱360	1,800
1 employee	240
Total expenses authorized	25,700

As the work of the division was systematized it was found that it could be operated still more economically than was at first thought, and the total cost for the operation of the division was only ₱21,060 instead of ₱25,700, as estimated. In other words, with an outlay of ₱21,060, the operations were carried on of a Bureau with an appropriation of approximately ₱1,000,000, maintaining four institutions for the care of sick, lepers, insane, etc. (two of them outside of the city of Manila); regulating the admissions and the discharges of three charitable institutions, with executive control over the sanitary operations of the entire Archipelago; maintaining a force of over 100 vaccinators in the field; distributing thousands of packages of medicines among the indigent in the various portions of the Archipelago; providing for the sanitation of the city of Manila, and other branches of work too numerous to mention. These operations were properly recorded, expenditures made on account of same properly audited and passed for payment, and the most detailed record of all expenditures made.

So far as is known, no other Bureau of like importance in the Philippine Government has maintained its clerical division at such a small outlay and has achieved on the whole such satisfactory results, especially in the matter of the closest scrutiny of all expenditures made and with regard to the exhaustive character of the statistical information which has been kept relative to such expenditures.

FAILURE OF COPPER SULPHATE FOR PUBLIC WATER SUPPLIES.

Experiments which were made at the laboratory of the Bureau of Science, at the request of this Bureau, in the treatment of the city water supply with copper sulphate with a view to rendering all the water safe against cholera germs, have shown that this method is a complete failure in actual practice in Manila. The efficacy of copper sulphate placed in the local water supply was thoroughly tested. Solutions of copper sulphate varying from 1–2,000,000 to 1–150,000 were prepared. Cholera organisms which were introduced into these solutions were recovered in each instance, in all strengths between 2,000,000 and 200,000. In a strength of 1–150,000 no growth could be detected after four hours and in a strength of 1–100,000 no growth of cholera organisms was found in one and a half hours.

From the foregoing it will be seen that strengths of 1–150,000, acting over a period of at least four hours, would be required in order to make Manila's water safe against the cholera vibrio. This is another illustration, that while copper sulphate was found to be entirely efficacious in the laboratory experiments made by Moore and Kellerman, in much greater dilutions than as shown above, yet in practical application, the composition of Manila's water was found to be such that much stronger solutions are required to attain the same results.

If copper sulphate could have been used successfully in the city reservoir, it will be seen that Manila could have viewed the presence of cholera upon the watershed with more or less indifference, but in view of the fact that the strength of 1–150,000 would be required in order to render the water safe, it was not deemed advisable to permit the population to drink constantly a copper sulphate solution of this strength. While there may be no immediate danger from copper sulphate in this dose, still, an accumulative effect might be expected if the practice should be continued over a long period of time.

Even if the use of copper sulphate had proven successful, a drawback would have been the fact that using disinfectants in such a wholesale manner would probably have interfered seriously with the disposal of the excreta in the city, because the greater portion of it is taken care of through septic-tank systems, and if the saprophytic organisms which are essential for the success of this process had been killed off, a great nuisance would have been created, not to mention the menace to public health in other directions.

REGULATING THE MANUFACTURE AND SALE OF FOODS AND DRINKS.

One of the provisions of provost-marshal-general's Ordinance No. 15, dated July 15, 1901, entitled "An ordinance regulating the manufacture and sale of food and drink," was to the effect that no meat, fish, or manufactured or cooked food or drink should be sold without first obtaining a license therefor, and that such license should not be issued without the approval of the Bureau of Health. This ordinance was modified September 11, 1905, by amendment, so as to make it necessary to obtain a license from the Bureau of Health.

At the present time the ordinances and regulations covering the sale of foods and drinks are scattered through so much legislation that it is almost impossible to present a violation of the law before a court in a satisfactory manner. This is another matter which has been systematized in the proposed Sanitary Code, and is another reason why the prompt passage of the proposed ordinance is necessary to guard the public health.

During the cholera epidemic of 1902 the infection in many instances was traced to uncovered foods, which had been contaminated by flies or by the hands of customers of the tiendas, but on account of the difficulties of a satisfactory solution of the question no definite action was taken until the cholera reappeared in Manila, August, 1905, whereupon this office recommended the aforesaid amendment and devised a food screen made of a wooden frame and a painted wire gauze, the use of which is made a condition for granting the license. Licenses are revoked for noncompliance with the ordinance.

The effect of the new regulation became apparent at once. The tienda keepers complied very willingly with the requirements when they found that there was no way to evade the ordinance, and provided screens, some by buying them ready made and others by purchasing the material and making them. These screens have been, beyond doubt, an important factor in the prophylactic crusade against cholera. Frequent inspections are made in order to enforce their use.

The Bureau of Health, through the various health stations, has issued, under the provisions of the said ordinance, 327 licenses. When an application is recorded at a health station the premises named therein are carefully inspected and the applicant is told what it is necessary for him to do before license can be granted; on receipt of the second application another inspection is made, and if all requirements are met the license is issued. Since the regulation has become generally known, many licenses have been issued at the first inspection. The same precautions are taken in reference to bottled waters, soda water, and other drinks.

TUBERCULOSIS.

Tuberculosis is often called "The Great White Plague," but is just as deadly in its invasions into the brown man's country as it is among white races. It could be more appropriately called the Universal Plague, as its deadly ravages are known the world over.

Tuberculosis is a disease which can be prevented, but to do so requires the most thoughtful care and watchfulness on the part of the sick and well, especially of those whose duty it is to care for the sick.

In view of the fact that the death rate from this disease in Manila is 5 per thousand, it is obvious that one of the most serious problems which confronts the sanitarians of the Philippines, even more than those of any other country, is that of tuberculosis.

The disease could be practically eradicated from the human family by following a few simple but imperative rules of sanitation, but as it is easier to be bad than good, so is it easier to be insanitary than sanitary. Nothing but education will ever stop the spitting habit. Legislate as we may, the filthy, deadly habit still continues. It has been observed that many of the more intelligent are particularly careless in this matter, and so long as those who ought to know better continue the habit with such reckless abandon, it seems almost useless to preach the gospel of sanitation to others.

This Bureau is now preparing a pamphlet on tuberculosis to be placed in the hands of the teachers of the Bureau of Education throughout the Islands.

The Municipal Board of the city of Manila has recently passed an ordinance against spitting in street cars, and the proposed Sanitary Code contains a section to the effect that in order to prevent the spread of pulmonary tuberculosis all persons are forbidden to spit or deposit any sputum, saliva, phlegm, or mucus on the floor of any church, schoolhouse, public building, or other place of public assembly, or street car or other public conveyance or on any sidewalk of any of the streets or highways of the city of Manila.

The disease will also be attacked through the regulation of the sale of milk taken from diseased animals and from every other standpoint possible.

TYPHOID FEVER.

In the last annual report mention was made of the fact that it was believed that typhoid fever was not so prevalent as the statistical tables seemed to indicate. At that time a number of cases had already been investigated by laboratory methods of diagnosis and a considerable number of them were found not to be typhoid fever. These investigations were continued during the present year and the results have fully confirmed the presumption that mistakes are frequently made in the diagnosis of this disease.

During the year 45 deaths from typhoid were reported in the city of Manila. Of these only 4 were found positive to the Widal reaction. Among those who recovered from diseases diagnosed as typhoid, 9 cases were found positive, or a total of 13 found positive during the year. The mortality was about 30 per cent which is the usual death rate for this disease in the Tropics.

In the report of the Surgeon-General for the United States Army for the year ended June 30, 1905, it is stated that among the troops stationed in the Philippines 23 cases occurred, with 5 deaths, which gives a mortality of 21.7 per cent.

The disease has made its appearance from time to time in various parts of the Islands, especially at places at which troops were stationed. Conditions, however, do not seem to have been favorable for its spread.

During the time the Benguet road was under construction many Japanese laborers were employed thereon. A number of cases of typhoid fever occurred among them, and later a few cases were encountered among the Igorots in that section, but since the removal of the Japanese no further cases have come under observation.

From the foregoing it would appear that conditions are not particularly favorable for the spread of this disease in the Philippines.

In view of the fact that the most common method of spread of typhoid fever is probably by public water supplies or through milk, and, furthermore, that outside of the city of Manila there are no water systems in the Philippines, and that the use of milk is very rare except that which is imported into the country in cans, may account for the small amount of progress which this disease has made in the past, but the rapid increase in the use of milk in the city of Manila and the thickly populated watershed from which the city obtains its water makes it rather probable that Manila is in considerable danger of becoming thoroughly infected with typhoid fever unless the greatest precautions are observed in preventing its gaining a foothold. To this end, the watershed is constantly and most carefully watched, in order to prevent stools from a possible case of typhoid fever being introduced into the Manila water supply.

In the proposed Sanitary Code which is now in the hands of the Municipal Board for enactment, adequate provision has also been made to guard against infection being spread by milk.

The reporting of cases is compulsory, which makes it possible to carry out proper methods of disinfection.

INTESTINAL AMŒBIASIS (AMŒBIC DYSENTERY).

Amœbic dysentery still easily retains first place as that disease which is the white man's worst enemy in the Tropics. More permanent disability is caused, more time is lost, and more persons are compelled to give up their residence in the Islands and seek the temperate zone than from all the other tropical diseases combined.

Although the prophylaxis is so simple, yet the sources of infection are so numerous and so constant that it is not strange that it prevails to such a great extent; however, the number of deaths for the fiscal year just closed shows a diminution as compared with the number of deaths for last year; the same being, for the period of this report, 280 cases, and for last year, 313.

While water is the principal source of infection, and the majority of cases can be traced indirectly to the use of unsterilized water, the danger of handling or eating green vegetables and fruits must not be overlooked. The city water supply contains a large number of protozoa and amœbæ, and should not be used for drinking purposes until it is sterilized; but it is practically impossible to observe this injunction, as all sources of infection can not be shut off.

This disease affords another excellent example of the amount of good that is constantly accomplished by modern prophylactic medicine when systematically applied. A study of the morbidity statistics showed that for several years a great number of cases of dysentery occurred among the guests of a certain leading hotel in the city. On investigation it was found that all water for the table, although said to be previously boiled, was then passed through a stone filter. A biological examination of some of the contents of the filter showed it to be swarming with amœbæ. The use of the filter was discontinued, and for more than eight months nothing but distilled water has been used on the table, and no cases of dysentery have been reported from the hotel since.

BERIBERI.

The record of the past year shows that beriberi has been much less common in public institutions and other places under governmental control than has been the case during previous years.

The number of cases occurring at the light-house stations, at which deaths were so frequent in the past, was practically reduced to nil during the year. In the provincial jails, where the disease has always prevailed to a large extent, only a few cases were encountered. It is believed that this improvement may be safely attributed to the disinfection of the premises in which cases occurred, providing more light and air in the quarters heretofore affected, and changing the diet so that it contained more nitrogenous constituents. The increase in the nitrogen in the diet was principally accomplished by issuing mangoes, which is a sort of lentil and is rich in nitrogen.

At the Culion leper colony an outbreak occurred among the lepers that were transferred from Cebu, but in view of the fact that this disease was very common among them at the Cebu leper hospital, it can almost be said with certainty that they took the infection with them to their new home.

In the city of Manila there were 378 deaths from beriberi reported during the year. No cases were reported among Europeans or Americans. In proportion to the population, the Chinese were most afflicted.

Dr. Maximilian Herzog, formerly pathologist of the Bureau of Science, went to Japan during the year for the purpose of making a special study of this disease, and the result of his observations was published in the Philippine Journal of Science.

MALARIAL DISEASES.

During the year there were 169 deaths reported in Manila from malaria, the fatal variety being of the aestivo-autumnal type which sometimes manifests itself with remittent character and sometimes with malignant character. Many of the diagnoses were, however, not verified microscopically, and it is quite probable that some deaths due to other causes were included.

The natives are believers in the efficacy of quinine and laxatives, but oftentimes they are not resorted to until too late. The masses still adhere to the "bad-air" theory of the cause of the disease, and absolve the mosquito from all blame, while he goes on with his deadly work.

There are two beliefs held by medical men with reference to the extent of the disease, one being that practically all the natives have malaria in latent form, and the other that it is relatively a rare disease when compared with its ravages in many parts of the United States.

The number of cases reported for the present year, as compared with last year, shows an increase in the number of deaths in Manila of 59, which indicates that the number of cases, as compared with the number for last year, was correspondingly greater.

The work of oil spreading, which the Bureau of Health had carried on for two years, was temporarily interrupted by the appearance of cholera, but will be resumed as soon as conditions will permit. There are so many places in the city which afford secure breeding places that it is impracticable to treat them all with oil. The abundance of tropical foliage to be found everywhere affords safe retreats.

There was a marked reduction in the number of cases of malaria during the outbreak which occurs annually in the Provinces of Ambos Camarines and Albay. This can no doubt be attributed to the extensive free distribution of quinine which was made during the year in these provinces.

The cholera has interfered with nearly every plan and purpose of the Bureau of Health, the demands on the service being so great that very little time has been available for other work, and many things that under other circumstances would have been urgent have necessarily been postponed.

AMBULANCE SERVICE.

The system of ambulance centralization having been found very satisfactory in Berlin and other large continental cities, it was determined to give the idea a trial. The merging of the Civil Hospital Bureau with the Bureau of Health afforded the necessary opportunity, and the experience of the past year has not only fully demonstrated that it is more economical but at the same time the efficiency was increased. All ambulances and other transportation used by the Bureau of Health are now kept at the city stables No. 1. Calls can be transmitted by any police officer, through the private police telephone system, as well as from any health station or city telephone. The facilities of this large and well-managed stable make it practically impossible for delays to occur.

One of the first official changes inaugurated by this office was to regulate the reckless speed of ambulances when answering calls. It has often been demonstrated that, after all, better time will be made by careful driving so as to avoid accidents than by the former method, so fraught with danger to the patients, pedestrians, and light vehicles, and to the service itself. Except in extraordinary cases, reasonable speed is all that is ever required. By the present system, the time lost in decreased speed is fully compensated for by the promptness in getting the ambulances out of the stables after calls, and by taking the shortest routes, with which the experienced drivers now employed are familiar. The unnecessary clanging of gongs is prohibited, and in consequence the patients are moved so quietly from their homes to the hospitals that it is all over before there is time for a curious crowd to assemble.

The ambulances in use by the Bureau of Health are modern rubber-tired vehicles and are of three kinds—the first for nonepidemic diseases, the second for dangerous communicable diseases, and the third for the morgue service.

As soon as an ambulance arrives at the stable from a trip it is carefully disinfected by experienced disinfectors before going out again.

MEDICAL EDUCATION.

During the year the Commission has made provision for the establishment of another medical college in Manila, to be known as the Philippine Medical School. The new college will be conducted under Government auspices, and the instruction will be given in English. It was hoped to matriculate the first class in June, but it was deemed best that they should take another year of preparatory work in the Normal School.

The work of the new college will be conducted along modern lines, all the facilities of the Bureau of Health and of the Bureau of Science being made available by the act authorizing the establishment of the school. With these unusual advantages, and with access to the various hospitals and clinics in the city of Manila, for practical teaching, it will be possible to conduct a first-class institution modeled after the medical school of the Johns Hopkins University.

The law provides that scientific men employed by the Government shall act as instructors and professors without additional compensation.

It is expected that a class of about forty will be ready to matriculate next year. The Director of Education has arranged the last two years' work of candidates for admission to the medical school, so as to prepare them for the work of the course. The school will admit both sexes and no discrimination will be made on account of color or nationality, the only restrictions being those of a moral and educational character. No student who is found to be deficient in education will be admitted, and all of a questionable character are to be strictly excluded.

HEALTH RESORTS.

The Philippine Islands are particularly fortunate in having many places which may be appropriately termed health resorts. The Government sanitarium is located at Baguio, Benguet Province, the summer capital, about 130 miles from Manila. All that is needed to make this place a veritable Mecca during the hot season is railroad transportation. Nature has blessed it with an invigorating climate, good water, pure air, and pleasing scenery. The completion of the Benguet highway has made the place easily accessible to those who are able to travel. Trains leave Manila in the early morning and at noon every day for Dagupan, from which place transportation may be obtained from the Constabulary or from private persons, the time necessary for the entire journey being usually two days.

A new hotel is in operation, with ample accommodations for its guests. The Government has sold a number of town lots in Baguio, and the number of private cottages will soon be much increased. Plans are now actually in preparation for the construction of an additional hospital building, so that there will be ample accommodation for the sick.

Los Baños, on Laguna de Bay, a few hours' ride by river steamer from Manila, is justly celebrated for its hot springs. The United States Army has established a reservation and hospital there for the treatment of those in the military service.

The therapeutic properties of the water are in all probability due to its thermal qualities, but it is also bottled and sold extensively throughout the Philippine Islands, and considerable quantities are exported.

The McVean baths are open to the general public at a reasonable charge, and many people from Manila visit the resort.

Another resort, that was noted in Spanish times, is Sibul Springs in Bulacan Province. The nearest railway station is San Miguel de Mayumo, on a branch line of the Manila and Dagupan Railway which has been recently completed. The station is about 5 miles from the springs; in the dry season about an hour's drive by carromata. Efforts have been made to reopen the springs, but on account of the question as to the ownership of the property nothing has been done yet, though many people visit the springs for the benefits of the waters.

A careful investigation of its therapeutic properties has not yet been made, but it may be safely stated that it exercises a very beneficial influence upon many cases of gastro-intestinal disorders, especially those of a catarrhal nature.

IMPROVEMENT IN WATER SUPPLIES NECESSARY.

The greater number of medical men at present in the Islands who have given the matter any thought are of the opinion that the very inferior grade of drinking water used by the people is the cause of a great many diseases and evils.

Cholera is spread, undoubtedly, more by inferior grades of drinking water than by any other means.

Intestinal worms are disseminated by the same means, and gastro-intestinal disorders of undetermined nature are undoubtedly due to the great number of bacteria present in practically all the waters of the Islands. Dysentery is widespread, and is due to water almost invariably.

Examinations of a great number of stools of Filipinos show that it is the exception to find one that does not contain the eggs or embryos of at least one of the following: *Tricocephalus dispar, Ankylostoma duodenalis, Ascaris lumbricoides, Strongyloides intestinalis, Amœba dysenteriæ, Oxyuris vermicularis;* rarely, *Balantidium coli* and other parasites. *Tricocephalus dispar, Ankylostoma, Ascarides, Oxyuris,* and *Amœbæ* are quite common, and are all frequently seen in one stool.

When one stops to think of the anæmias and other complications that follow in those so unfortunate as to have such an array of parasites in their internal economy, one of the predisposing causes for the high infant mortality, for the small stature, poor physique, low vitality, inability to withstand the inroads of disease, low mentality of the poorer clesses, with lack of ambition and originality, readily suggests itself.

It is true that the food the average person of the poorer class eats is not of the best quality, and that the variety is limited and that it is poorly and improperly prepared, but since it is impracticable to correct this immediately, the first and most rational thing to do would be to remove, if possible, the horde of parasites that are using up a large percentage of the food he does get, so that the individual may derive the full benefit of that which he ingests.

With a few exceptions, the towns throughout the Islands are compelled to get their water from small rivers, springs, wells, irrigation canals, rain water, and any other source where water can be obtained; the rivers usually have towns on both banks for almost their entire length, and as the only system of sewage disposal is the ever-present pig or fly, the majority of the sewage is carried into the river by the first rain, if it has not been already thrown or deposited there by the people themselves.

Springs are never protected, wells are never covered; rain water collected from nipa roofs is not clean and soon becomes filled with mosquito larvæ and other insect life.

Realizing that the country can never progress, and the hopelessness of attempting to combat epidemics, with conditions as above described, the draft of an act was prepared and submitted to the honorable the Secretary of the Interior, the essential points of which follow:

(1) A reimbursable appropriation, to be known as the "Municipal water-supply fund," is created in the Insular Treasury.

(2) Upon application from a town, a representative from the Bureau of Public Works and the Bureau of Health proceed to the town and, in conjunction with the town council, establish the boundaries of a water district, all within the district to be furnished with water from the contemplated system. The form of system, whether from a mountain stream with uninhabited watershed, artesian or driven wells, is then decided upon and plans and estimates drawn up.

(3) The council then passes an ordinance fixing a special per capita tax not to exceed ₱3 per annum.

(4) The plans, estimates, rate of taxation, etc., are then put to vote, the voters being those persons who live in the water district—anyone who pays any form of tax whatsoever being liable to the water tax and eligible to vote.

(5) If the election results in favor of the system, the Insular Government then proceeds to install the system, by contract, or through the Bureau of Public Works. If no water is obtained and the system results in a failure, no charge is made to the town. If it is successful, the town collects the tax mentioned above, depositing into the Insular Treasury to the credit of the "Municipal water-supply fund" until the contract price, plus 10 per cent—the extra 10 per cent being a guaranty to the Government against loss in case of failure at other places, to cover deficiencies in estimates, etc., and is, in reality, similar to a premium paid a fire or life insurance company.

The above plan has been presented to a number of towns in the Islands and all consulted have stated that if the measure should become a law they would avail themselves of its advantages at once, as otherwise it would be many years before they could hope to have good water.

The tax of 25 centavos per month was considered very small, particularly when at most places the minimum paid at present to have a very inferior grade of water carried to their houses is ₱1.50 to ₱2 per month, and in some places costs as much as ₱8 to ₱10 per month. Many persons keep a servant whose whole work is to carry water.

In addition, the water tax is not collected until the need for paying for water no longer exists.

With a view to giving those persons who travel by water an opportunity to have proper drinking water while en route, the question of installing on all interisland vessels a small distilling apparatus that could be operated at a small cost has received considerable attention. One distilling machine was designed and later constructed at the shops of the Bureau of Navigation. The apparatus was satisfactory in every way, but it was rather heavy, and it was therefore deemed advisable to make further attempts to attain the same results by using lighter materials. This matter is now receiving attention. The distilling apparatus that was designed could be installed complete at a total cost of about ₱130 ($65, United States currency).

It was the intention to use the boiler steam, thus making its operation a very inexpensive matter. The importance of having proper drinking water on board ship can not be overestimated. Persons who are habitually careful about their drinking water frequently find themselves on board ship for a trip of several days with nothing to drink but the ordinary city tap water, which is manifestly unsafe; but, there being no other available, they are almost compelled to use it.

EXPENDITURES.

At the close of the last fiscal year all unexpended balances reverted to the Treasury—in amount, ₱3,566.96. The amount received from all sources in the fiscal year 1906, including appropriations and refunds, amounted to ₱991,750.

The total expenditures[1] authorized during the same period were ₱844,409.02, leaving a balance at the end of this fiscal year of ₱147,340.98, which will revert to the Treasury.

These amounts are perhaps not absolutely accurate, because the exact amount of the bills contracted for during the latter part of the fiscal year is not yet known.

Detailed financial statement will be found in the appendix.

Very respectfully,

VICTOR G. HEISER,
Passed Assistant Surgeon, U. S. P. H. and M. H. Service,
Director of Health.

The SECRETARY OF THE INTERIOR, *Manila.*

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[1] The figures shown above for expenditures include ₱10,000 authorized to be expended from any available balance of funds for the construction of a gravity water system at the Culion leper colony.

APPENDIX.

STATISTICAL TABLES, BUREAU OF HEALTH, JULY 1, 1905, TO JUNE 30, 1906.

GENERAL STATISTICS.

[Unless otherwise stated these statistics are for the fiscal year ended June 30, 1906.]

Population of the city of Manila.

[Official census of 1903.]

Nationality.	Population.	Nationality.	Population.
Americans	4,389	Chinese	21,230
Filipinos	189,782	All others	895
Spaniards	2,528		
Other Europeans	1,117	Total	219,941

Births reported.[a]

Nationality.	Males.	Females.	Total.	Annual average per 1,000.
Americans	50	38	88	20.05
Filipinos	4,486	4,037	8,523	44.90
Spaniards	22	12	34	13.44
Other Europeans	8	7	15	13.42
Chinese	10	7	17	.80
All others	1	1	2	22.34
Total and average	4,577	4,102	8,679	39.46

[a] Incomplete.

Births by districts.[a]

Health district.	Number of legitimates.			Number of illegitimates.			Grand total.
	Males.	Females.	Total.	Males.	Females.	Total.	
No 1, San Nicolas	358	321	679	54	48	102	781
No. 2, Tondo	933	872	1,805	59	50	109	1,914
No. 3, Quiapo	342	308	650	42	40	82	732
No. 4, Santa Cruz	751	649	1,400	121	80	201	1,601
No. 5, Sampaloc	607	545	1,152	124	127	251	1,403
No. 6, Intramuros	275	208	483	5	1	6	489
No. 7, Paco, etc	861	807	1,668	45	46	91	1,759
Total	4,127	3,710	7,837	450	392	842	8,679

[a] Incomplete.

Births, by districts, and annual birth rate per 1,000.[a]

Health district.	Population.	Births.	Annual rate per 1,000.
No. 1, San Nicolas	53,573	781	14.57
No. 2, Tondo	39,045	1,914	49.02
No. 3, Quiapo	18,487	732	39.59
No. 4, Santa Cruz	43,040	1,601	37.19
No. 5, Sampaloc	20,279	1,403	69.18
No. 6, Intramuros	17,463	489	28
No. 7, Paco, etc	28,054	1,759	62.70
Total	219,941	8,679	39.46

[a] Incomplete.

Number of deaths and death rate among residents, by nationalities.

Nationality.	Number of deaths.	Annual average per 1,000.	Nationality.	Number of deaths.	Annual average per 1,000.
Americans	41	9.34	Chinese	330	15.54
Filipinos	8,547	45.03	All others	38	42.45
Spaniards	44	17.40			
Other Europeans	16	14.32	Total and average	9,016	40.99

A classified report, by sex and condition, of all deaths occurring in residents and transients from July 1, 1905, to June 30, 1906.

Males.	Number.	Females.	Number.
Married	1,030	Married	705
Widowers	323	Widows	524
Single	925	Single	258
Boys	3,002	Girls	2,534
Condition not stated	140	Condition not stated	45
Total	5,420	Total	4,066
Grand total			9,486

Stillbirths, 321.

Number of deaths with medical attendance	5,436
Number of deaths without medical attendance	4,050
Total	9,486

Deaths, by districts, including transients.

Health district.	Population.	Deaths.	Annual rate per 1,000.	Health district.	Population.	Deaths.	Annual rate per 1,000.
No. 1, San Nicolas	53,573	885	16.51	No. 6, Intramuros	17,463	797	45.63
No. 2, Tondo	39,045	2,716	69.56	No. 7, Paco, etc	28,054	1,339	47.72
No. 3, Quiapo	18,487	621	33.59				
No. 4, Santa Cruz	43,040	1,990	46.23	Total and average	219,941	9,486	43.12
No. 5, Sampaloc	20,279	1,138	56.11				

Deaths, by age, including transients.

Age.	Number.	Age.	Number.
Under 30 days	1,147	40 years to 50 years	532
30 days to 1 year	3,071	50 years to 60 years	393
1 year to 2 years	577	60 years to 70 years	293
2 years to 5 years	567	70 years to 80 years	202
5 years to 10 years	165	80 years to 90 years	118
10 years to 15 years	88	90 years to 100 years	55
15 years to 20 years	368	Over 100 years	23
20 years to 25 years	471	Unknown	19
25 years to 30 years	579		
30 years to 40 years	818	Total	9,486

Comparative mortality from January 1, 1901, to June 30, 1906.

Month.	1901.		1902.		1903.	
	Number of deaths.	Annual death rate per 1,000.	Number of deaths.	Annual death rate per 1,000.	Number of deaths.	Annual death rate per 1,000.
January	753	[a]36.25	760	[a]36.58	602	[a]28.98
February	689	[a]36.72	706	[a]37.63	511	[a]27.28
March	885	[a]42.66	770	[a]37.06	589	[a]25.94
April	886	[a]44.07	1,327	[a]66.01	549	[a]27.31
May	903	[a]43.47	1,688	[a]81.26	770	[a]37.06
June	621	[a]30.89	1,418	[a]70.54	592	[a]29.45
July	608	[a]29.27	2,223	[a]107.02	620	[b]33.21
August	702	[a]33.79	1,712	[a]82.42	862	[b]46.17
September	767	[a]38.15	1,182	[a]56.81	1,228	[b]67.97
October	855	[a]41.16	927	[a]44.62	1,217	[b]65.19
November	848	[a]42.18	1,035	[a]51.48	974	[b]53.91
December	858	[a]41.30	753	[a]36.25	894	[b]47.89

Month.	1904.		1905.		1906.	
	Number of deaths.	Annual death rate per 1,000.	Number of deaths.	Annual death rate per 1,000.	Number of deaths.	Annual death rate per 1,000.
January	796	[b]42.64	685	[b]36.69	737	[b]39.47
February	709	[b]40.59	608	[b]36.06	595	[b]35.28
March	751	[b]40.23	563	[b]30.15	600	[b]32.18
April	748	[b]41.40	530	[b]29.32	555	[b]30.27
May	766	[b]41.03	526	[d]28.16	600	[b]32.18
June	800	[b]44.28	593	[b]32.81	693	[b]36.72
July	866	[b]46.39	747	[b]40	-----	-----
August	1,032	[b]55.28	841	[b]45.03	-----	-----
September	1,064	[b]58.89	1,013	[b]56.06	-----	-----
October	1,018	[b]54.53	850	[b]45.51	-----	-----
November	957	[b]52.97	944	[b]52.24	-----	-----
December	794	[b]42.53	841	[b]43.03	-----	-----

[a] Death rate computed on population of 244,732 (Health Department's census).
[b] Death rate computed on population of 219,941 (official census, 1903).

Number of deaths, with causes, occurring among residents in the city of Manila.

[Stillbirths not included.]

Causes of death.	Americans.		Foreigners.		Filipinos.		Chinese.		Total.
	Male.	Female.	Male	Female.	Male.	Female.	Male	Female.	
I. General diseases.									
1. Typhoid fever (abdominal typhus)	-----	-----	2	2	27	14	-----	-----	45
4. Intermittent fever and malarial-cachexia	1	1	3	-----	114	34	15	1	169
4a. Malarial cachexia	-----	-----	-----	-----	17	7	3	-----	27
5. Smallpox	-----	-----	-----	-----	3	2	-----	-----	5
6. Measles	-----	-----	-----	-----	1	-----	-----	-----	1
8. Whooping cough	-----	-----	-----	-----	2	3	-----	-----	5
9. Diphtheria and croup	-----	-----	-----	-----	7	2	-----	-----	9
10. Influenza	-----	-----	-----	-----	4	2	3	-----	9
12. Asiatic cholera	4	1	11	-----	171	120	10	-----	317
14. Dysentery	3	1	3	-----	159	78	35	1	280
15. Bubonic plague	-----	-----	-----	-----	7	5	7	-----	19
17. Leprosy	-----	-----	-----	1	38	21	-----	-----	60
18. Erysipelas	-----	-----	1	-----	1	3	-----	-----	5
19. Other epidemic diseases (beriberi)	-----	-----	2	-----	186	144	46	-----	378
20. Purulent infection and septicæmia	2	-----	-----	-----	15	8	-----	-----	25
21. Glanders and farcy	-----	-----	-----	-----	1	-----	-----	-----	1
22. Malignant pustule	-----	-----	-----	-----	1	4	-----	-----	5
24. Actinomycosis, trichinosis, etc	-----	-----	-----	-----	1	-----	-----	-----	1
26. Tuberculosis of the larynx	-----	-----	-----	-----	11	11	-----	-----	22
27. Tuberculosis of the lungs	1	-----	8	2	608	431	71	1	1122
28. Tuberculosis of the meninges	-----	-----	1	-----	26	14	-----	-----	41
29. Abdominal tuberculosis	1	-----	1	-----	19	18	-----	-----	39
30. Pott's disease	-----	-----	-----	-----	-----	1	-----	-----	1
33. Tuberculosis of other organs	-----	-----	-----	-----	5	1	1	-----	7
34. General tuberculosis	-----	-----	2	-----	19	4	1	-----	26

Number of deaths, with causes, occurring among residents in the city of Manila—Cont'd.

Causes of death.	Americans.		Foreigners.		Filipinos.		Chinese.		Total.
	Male.	Female.	Male.	Female.	Male.	Female.	Male	Female.	
I. General diseases—Continued.									
35. Scrofula					5	3	1		9
36. Syphilis					2	2	1		5
37. Gonorrhea (5 years and over)					1				1
39. Cancer and other malignant tumors of the buccal cavity					2	3			5
40. Cancer and other malignant tumors of the stomach and liver					1	4			5
41. Cancer and other malignant tumors of the peritoneum, intestines, and rectum					1		1		2
42. Cancer and other malignant tumors of the female genital organs						5			5
43. Cancer and other malignant tumors of the breast						4			4
45. Cancer and other malignant tumors of other organs or of organs not specified			1		7	9			17
47. Acute articular rheumatism					7	4			11
48. Chronic rheumatism and gout					24	28			52
49. Scurvy					1	1			2
50. Diabetes					2	3			5
51. Exophthalmic goiter						2			2
54. Anæmia, chlorosis					5	10	2	2	19
55. Other general diseases	1				3				4
56. Acute and chronic alcoholism	1		1						2
59. Other chronic poisonings							3		3
II. Diseases of the nervous system and of the organs of special sense.									
60. Encephalitis					2				2
61. Simple meningitis	1		2	1	207	165			376
61a. Epidemic cerebro-spinal meningitis						1			1
62. Progressive locomotor ataxia			1						1
63. Other diseases of the spinal cord	1				4	2			7
64. Congestion and hemorrhage of the brain					46	35	3		84
65. Softening of the brain					2	4			6
66. Paralysis without specified cause			1		1	1			3
67. General paralysis					5	5			10
68. Other forms of mental alienation						1	4		5
69. Epilepsy					1	3	1		5
71. Convulsions (under 5 years)	1			1	1,165	1,023	6	4	2,200
72. Tetanus	1		1		66	64	1		133
74. Other diseases of the nervous system							1		1
75. Diseases of the eye and its adnexa						1			1
76. Diseases of the ear					1	1			2
III. Diseases of the circulatory system.									
77. Pericarditis					4	3			7
78. Acute endocarditis					9	10	3		22
79. Organic diseases of the heart			4		31	41	19		95
80. Angina pectoris			1		15	22	7		45
81. Diseases of the arteries (atheroma, aneurism, etc.)			3	1	10	11			25
82. Embolism and thrombosis					2	2			4
85. Hemorrhages					2	1			3
86. Other diseases of the circulatory system					1				1
IV. Diseases of the respiratory system.									
88. Diseases of the larynx					2	3			5
90. Acute bronchitis					254	214	6		474
91. Chronic bronchitis			1	1	143	136	19	1	301
92. Broncho-pneumonia		1		1	19	17			38
93. Pneumonia		1	1		55	8	1		66
94. Pleurisy					2	2			4
95. Congestion and apoplexy of the lungs	1		1	1	12	9			24
97. Asthma			1		13	7	5		26
98. Pulmonary emphysema					1				1
99. Other diseases of the respiratory system (phthisis excepted)					1	1			2
V. Diseases of the digestive system.									
100. Diseases of the mouth and its adnexa			1		2				3
101. Diseases of the pharynx	1				1	1			3
102. Diseases of the esophagus							1		1
103. Ulcer of the stomach			2		6	2	1		11

Number of deaths, with causes, occurring among residents in the city of Manila—**Cont'd.**

Causes of death.	Americans.		Foreigners.		Filipinos.		Chinese.		Total.
	Male.	Fe- ma e.	Male.	Fe- male.	Male.	Fe- male.	Male.	Fe- male.	
V. *Diseases of the digestive system*—Cont'd.									
104. Other diseases of the stomach (cancer excepted)					23	22			45
105. Diarrhea and enteritis (under 2 years	1	1		2	156	133		1	294
105a. Chronic diarrhea and enteritis (under 2 years)					121	73			194
106. Diarrhea and enteritis (2 years and over)			6		194	200	2		402
107. Intestinal parasites					10	6			16
108. Hernias and intestinal obstructions					7	7	4		18
109. Other diseases of the intestines			1		4	2			7
110. Acute yellow atrophy of the liver					5		1		6
111. Hydatid tumors of the liver						1			1
112. Cirrhosis of the liver					11	6	3		20
113. Biliary calculi					2	2	1		5
114. Other diseases of the liver	3		2	1	6	6	4		22
115. Diseases of the spleen					1				1
116. Simple peritonitis (nonpuerperal)					11	11			22
117. Other diseases of the digestive system (cancer and tuberculosis excepted)			1						1
118. Appendicitis and abscess of the iliac fossa			1		7	2	3		13
VI. *Diseases of the genito-urinary system and its adnexa.*									
119. Acute nephritis	1		2		25	27	3		58
120. Bright's disease	1		2	1	45	55	5		109
121. Other diseases of the kidneys and their adnexa			1		2				3
122. Calculi of the urinary tract					3				3
123. Diseases of the bladder					3		1		4
124. Diseases of the urethra, urinary abscess, etc					1				1
125. Diseases of the prostate					1				1
127. Metritis						3			3
131. Cysts and other tumors of the ovary						1			1
132. Other diseases of the female genital organs						1			1
VII. *The puerperal state.*									
134. Accidents of pregnancy				1		4			5
135. Puerperal hemorrhage						36			36
136. Other accidents of labor						1			1
137. Puerperal septicæmia				1		43			44
138. Puerperal albuminuria and convulsions						5			5
VIII. *Diseases of the skin and cellular tissue.*									
142. Gangrene		1			1	2			4
143. Furuncle					1				1
144. Acute abscess, phlegmon					1	3			4
145. Other diseases of the skin and its adnexa					3	1			4
IX. *Diseases of the organs of locomotion.*									
146. Nontuberculous diseases of the bones					7	7			14
147. Arthritis and other diseases of the joints (tuberculosis and rheumatism excepted)					1	1			2
X. *Malformations.*									
150. Congenital malformation (stillbirths excepted)					7	8			15
XI. *Early infancy.*									
151. Congenital debility, icterus, and sclerema		1			252	166			419
152. Other diseases peculiar to early infancy					20	9			29
153. Lack of care				1	26	32			59

Number of deaths, with causes, occurring among residents in the city of Manila—Cont'd.

Causes of death.	Americans.		Foreigners.		Filipinos.		Chinese.		Total.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
XII. Old age.									
154. Senile debility				1	74	143			218
XIII. External causes.									
155. Suicide by poison			1						1
157. Suicide by hanging or strangulation					1	1			2
160. Suicide by cutting instruments	1								1
164. Fractures			1		6	2	2		11
166. Other accidental traumatisms	2		1		21	8	4		36
167. Burns and scalds				1	6	9			16
169. Sunstroke					1				1
171. Electric shock	1				4	1			6
172. Accidental drowning	3		1		5	4	3		16
173. Inanition (starvation)					1	4			5
176. Other external violence					1		2		3
XIV. Ill-defined diseases.									
177. Dropsy			1			2			3
178. Sudden death					1				1
179. Causes of death unspecified or ill defined			1		20	9	3		33
Total	33	8	78	20	4,687	3,860	319	11	9,016
Grand total	41		98		8,547		330		9,016

Number of deaths, with causes, occurring among transients in the city of Manila.

[These deaths are not included in computing death rate of the city.]

Causes of death.	Americans.		Foreigners.		Filipinos.		Chinese.		Total.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
I. General diseases.									
1. Typhoid fever (abdominal typhus)	1			1	6	3			11
4. Intermittent fever and malarial cachexia	1		3		7	4	5		20
4a. Malarial cachexia					1	2	2		5
9. Diphtheria and croup					1				1
10. Influenza						1	3		4
12. Asiatic cholera	2		6		12	7	1		28
14. Dysentery	1		6		10	4			21
15. Bubonic plague							1		1
18. Erysipelas					1				1
19. Other epidemic diseases (beri-beri)			5		13	10			28
20. Purulent infection and septicæmia			1		1	1			3
22. Malignant pustule			1						1
26. Tuberculosis of the larynx						1			1
27. Tuberculosis of the lungs	1		2	2	53	22	7		87
29. Abdominal tuberculosis			1		3				4
33. Tuberculosis of other organs					1				1
34. General tuberculosis					3				3
35. Scrofula						2			2
39. Cancer and other malignant tumors of the buccal cavity					1				1
42. Cancer and other malignant tumors of the female genital organs						3			3
43. Cancer and other malignant tumors of the breast						1			1
45. Cancer and other malignant tumors of other organs or of organs not specified					1	1			2
47. Acute articular rheumatism					1	1			2
54. Anæmia chlorosis			1		2				3
55. Other general diseases	1								1
56. Acute and chronic alcholism	1				1				2

Number of deaths, with causes, occurring among transients in the city of Manila—Cont'd.

Causes of death.	Americans.		Foreigners.		Filipinos.		Chinese.		Total.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
II. Diseases of the nervous system and of the organs of special sense.									
61. Simple meningitis			1		3	4			8
64. Congestion and hemorrhage of the brain			1		3	5			9
65. Softening of the brain					1	1			2
67. General paralysis						1			1
68. Other forms of mental alienation					1				1
71. Convulsions (under 5 years)					20	22			42
72. Tetanus					2				2
III. Diseases of the circulatory system.									
78. Acute endocarditis					2				2
79. Organic diseases of the heart	1		1		5	6	1		14
80. Angina pectoris					2	2			4
82. Embolism and thrombosis			1		1				2
85. Hemorrhages	1								1
IV. Diseases of the respiratory system.									
88. Diseases of the larynx					2				2
90. Acute bronchitis					5	6			11
91. Chronic bronchitis					10	8			18
92. Broncho-pneumonia		1			2				3
93. Pneumonia	1		1		4				6
94. Pleurisy					1				1
95. Congestion and apoplexy of the lungs					1				1
V. Diseases of the digestive system.									
101. Diseases of the pharynx							1		1
103. Ulcer of the stomach						1			1
104. Other diseases of the stomach (cancer excepted)						1			1
105. Diarrhea and enteritis (under 2 years)					6	6			12
105a. Chronic diarrhea and enteritis (under 2 years)					1	1			2
106. Diarrhea and enteritis (2 years and over)	1		2		11	13			27
107. Intestinal parasites					1	1			2
108. Hernias and intestinal obstructions					2				2
109. Other diseases of the intestines							1		1
112. Cirrhosis of the liver					1				1
114. Other diseases of the liver					2	1			3
115. Diseases of the spleen			1		1				2
118. Appendicitis and abscess of the iliac fossa	1				2	1			4
VI. Diseases of the genito-urinary system and its adnexa.									
119. Acute nephritis					2	2			4
120. Bright's disease			2		3	1			6
121. Other diseases of the kidneys and their adnexa	1					1			2
122. Calculi of the urinary tract					2				2
123. Diseases of the bladder						1			1
VII. The puerperal state.									
135. Puerperal hemorrhage						2			2
136. Other accidents of labor						1			1
137. Puerperal septicæmia						1			1
138. Puerperal albuminuria and convulsions						1			1
140. Other puerperal accidents—sudden death						1			1
VIII. Diseases of the skin and cellular tissue.									
142. Gangrene					2				2
145. Other diseases of the skin and its adnexa					1				1
IX. Diseases of the organs of locomotion.									
146. Nontuberculous diseases of the bones			1		2				3

Number of deaths, with causes, occurring among transients in the city of Manila—Cont'd.

Causes of death.	Americans.		Foreigners.		Filipinos.		Chinese.		Total.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
XI. Early infancy.									
151. Congenital debility, icterus and sclerema					2	5			7
XII. Old age.									
154. Senile debility					2	5			7
XIII. External causes.									
166. Other accidental traumatisms					1	2			3
167. Burns and scalds						1			1
178. Inanition (starvation)						1			1
XIV. Ill-defined diseases.									
179. Causes of death unspecified or ill defined					1	2			3
Total	14	1	37	3	228	165	22		470
Grand total	15		40		393		22		470

Number of deaths, with causes, occurring among residents in the city of Manila.

[Stillbirths not included.]

Causes of death.	Less than one day to thirty days.								From thirty days to one year.							
	Americans.		Foreigners.		Filipinos.		Chinese.		Americans.		Foreigners.		Filipinos.		Chinese.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
I. General diseases.																
1. Typhoid fever (abdominal typhus)					1											
4. Intermittent fever and malarial cachexia									1		1		11	10		1
4a. Malarial cachexia														1		
8. Whooping cough													1	2		
9. Diphtheria and croup													2	1		
10. Influenza													1	2		
12. Asiatic cholera													11	5		
14. Dysentery													28	18		
18. Erysipelas													1	1		
19. Other epidemic diseases (beri-beri)					2	1							48	26		
27. Tuberculosis of the lungs					1								63	30		1
28. Tuberculosis of the meninges					1								15	8		
29. Abdominal tuberculosis														1		
34. General tuberculosis													2			
35. Scrofula													2	1	1	
36. Syphilis														1		
II. Diseases of the nervous system and of the organs of special sense.																
61. Simple meningitis					7	8			1		2		86	65		
64. Congestion and hemorrhage of the brain					1	1							1	1		
71. Convulsions (under 5 years)					304	240	1	1	1			1	341	794	5	2
72. Tetanus	1				52	58										
76. Diseases of the ear													1	1		
III. Diseases of the circulatory system.																
78. Acute endocarditis					1											
85. Hemorrhages	1				2	1										

Number of deaths, with causes, occurring among residents in the city of Manila—Continued.

Causes of death.	Less than one day to thirty days.								From thirty days to one year.							
	Americans.		Foreigners.		Filipinos.		Chinese.		Americans.		Foreigners.		Filipinos.		Chinese.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
IV. Diseases of the respiratory system.																
88. Diseases of the larynx					1								1	1		
90. Acute bronchitis					7	9							191	113	1	
91. Chronic bronchitis					1	2							87	59		
92. Broncho-pneumonia		1			2	1							6	8		
93. Pneumonia													4	1		
95. Congestion and apoplexy of the lungs					8	7			1		1		1			
V. Diseases of the digestive system.																
100. Diseases of the mouth and its adnexa											1		1			
104. Other diseases of the stomach (cancer excepted)													13	9		
105. Diarrhea and enteritis (under 2 years)				2	23	13			1	1			75	65		
105a. Chronic diarrhea and enteritis (under 2 years)					6	3							90	59		
108. Hernia and intestinal obstructions														2		
109. Other diseases of the intestines					1											
114. Other diseases of the liver													1	1		
116. Simple peritonitis (nonpuerperal)													1	3		
VI. Diseases of the genito-urinary system and its adnexa.																
119. Acute nephritis									1				6	7		
120. Bright's disease													8			
VIII. Diseases of the skin and cellular tissue.																
145. Other diseases of the skin and its adnexa					1								3	1		
IX. Diseases of the organs of locomotion.																
146. Nontuberculous diseases of the bones													2	2		
147. Arthritis and other diseases of the joints (tuberculosis and rheumatism excepted)													1	1		
X. Malformations.																
150. Congenital malformations (stillbirths excepted)					5	1							1	6		

XI. Early infancy.																
151. Congenital debility, icterus, and sclerema		1			213	134							39	35		
152. Other diseases peculiar to early infancy					10	6							4	2		
153. Lack of care					2	2						1	20	25		
XIII. External causes.																
166. Other accidental traumatisms					1											
167. Burns and scalds													2			
173. Inanition (starvation)					1									2		
XIV. Ill-defined diseases.																
177. Dropsy														1		
179. Causes of death unspecified or ill defined					1	2							1	2		
Total	2	2		2	655	484	1	1	6	2	5	2	1,672	1,373	7	4
Grand total	4		2		1,139		2		8		7		3,045		11	

Causes of death.	From one to five years.								From five to ten years.							
	Americans.		Foreigners.		Filipinos.		Chinese.		Americans.		Foreigners.		Filipinos.		Chinese.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
I. General diseases.																
1. Typhoid fever (abdominal typhus)					4	2							5			
4. Intermittent fever and malaria cachexia		1			6	8							4	3		
4a. Malaria cachexia					3	2										
5. Smallpox					2	1										
6. Measles					1											
8. Whooping cough					1	1										
9. Diphtheria and croup					4	1										
12. Asiatic cholera					8	16							13	15		
14. Dysentery					11	7							4	5		
18. Erysipelas						2										
19. Other epidemic diseases (beri-beri)					8	7							4	3		
20. Purulent infection and septicæmia					2	1										
26. Tuberculosis of the larynx					1	1										
27. Tuberculosis of the lungs					6	14							1	7		
28. Tuberculosis of the meninges			1		4	2							6	4		
29. Abdominal tuberculosis					10	4							1	2		
30. Pott's disease														1		

Number of deaths, with causes, occurring among residents in the city of Manila—Continued.

Causes of death.	From one to five years								From five to ten years.							
	Americans.		Foreigners.		Filipinos.		Chinese.		Americans.		Foreigners.		Filipinos.		Chinese.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
I. General diseases—Continued.																
33. Tuberculosis of other organs					1											
34. General tuberculosis					4								2	1		
35. Scrofula					3	2										
37. Gonorrhea (5 years and over)													1			
47. Acute articular rheumatism														2		
49. Scurvy					1	1										
54. Anæmia, chlorosis								2								
55. Other general diseases									1							
II. Diseases of the nervous system and of the organs of special sense.																
61. Simple meningitis			1	1	100	61							4	7		
61a. Epidemic cerebro-spinal meningitis														1		
64. Congestion and hemorrhage of the brain						1										
67. General paralysis														1		
69. Epilepsy					1											
71. Convulsions (under five years)					40	11		1								
72. Tetanus					2	1							2	1		
75. Diseases of the eye and its adnexa						1										
III. Diseases of the circulatory system.																
78. Acute endocarditis						1										
80. Angina pectoris													1	1		
82. Embolism and thrombosis					1											
IV. Diseases of the respiratory system.																
88. Diseases of the larynx					1	2										
90. Acute bronchitis					58	94								1		
91. Chronic bronchitis				1	46	42							3	12		
92. Broncho-pneumonia		1		1	8	4							1			
3. Pneumonia					1								1			
5. Congestion and apoplexy of the lungs					1											
97. Asthma					1											

V. Diseases of the digestive system.																
101. Diseases of the pharynx					1	1										
103. Ulcer of the stomach					1											
104. Other diseases of the stomach (cancer excepted)					6	7										
105. Diarrhea and enteritis (under 2 years)					64	61		1								
105a. Chronic diarrhea and enteritis (under 2 years)					26	12										
106. Diarrhea and enteritis (2 years and over)					132	125							11	11		
107. Intestinal parasites					5	5							1	1		
108. Hernia and intestinal obstructions					2	1										
112. Cirrhosis of the liver													1			
116. Simple peritonitis (nonpuerperal)					2	2										
VI. Diseases of the genito-urinary system and its adnexa.																
119. Acute nephritis					2									3		
120. Bright's disease					5	1							1	1		
123. Diseases of the bladder														1		
IX. Diseases of the organs of locomotion.																
146. Nontuberculous diseases of the bones					2	3							2	2		
X. Malformation.																
150. Congenital malformations (stillbirths excepted)					1	1										
XI. Early infancy.																
151. Congenital debility, icterus, and sclerema					2	2										
152. Other diseases peculiar to early infancy					5	1							1			
153. Lack of care					4	5										
XIII. External causes.																
167. Burns and scalds					2	7							1	1		
172. Accidental drowning						1							2	2		
173. Inanition (starvation)						3										
XIV. Ill-defined diseases.																
177. Dropsy														1		
179. Causes of death unspecified or ill defined														1		
Total		2	2	3	605	528		3	1				78	91		
Grand total	2		5		1,133		3		1				164			

Number of deaths, with causes, occurring among residents in the city of Manila—Continued.

Causes of death.	From ten to fifteen years.								From fifteen to twenty years.							
	Americans.		Foreigners.		Filipinos.		Chinese.		Americans.		Foreigners.		Filipinos.		Chinese.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
I. General diseases.																
1. Typhoid fever (abdominal typhus)					2	2					1			2		
4. Intermittent fever and malarial cachexia													23	4	1	
4a. Malarial cachexia					4		1						1		1	
10. Influenza													1		2	
12. Asiatic cholera			2		9	2							40	9		
14. Dysentery													13	6		
15. Bubonic plague					3	1							1	1	1	
17. Leprosy													6	1		
19. Other epidemic diseases (beri-beri)													21	14	2	
20. Purulent infection and septicæmia					1	2					1		8	2		
21. Glanders and farcy													1			
26. Tuberculosis of the larynx						1								1		
27. Tuberculosis of the lungs					7	7					2		61	35	1	
29. Abdominal tuberculosis													1			
33. Tuberculosis of other organs													1	1		
34. General tuberculosis						1							1			
40. Cancer and other malignant tumors of the stomach and liver														1		
45. Cancer and other malignant tumors of other organs or of organs not specified						1							1			
48. Chronic rheumatism and gout													1			
II. Diseases of the nervous system and of the organs of special sense.																
61. Simple meningitis													3	6		
64. Congestion and hemorrhage of the brain					1	2										
67. General paralysis														1		
69 Epilepsy							1									
72. Tetanus					2											
III. Diseases of the circulatory system.																
77. Pericarditis						1										
78. Acute endocarditis					1								1	1		
79. Organic diseases of the heart													9	5		
80. Angina pectoris						2							1	2		

IV. Diseases of the respiratory system.																
91. Chronic bronchitis						1							1			
93. Pneumonia					1								8			
94. Pleurisy													1			
V. Diseases of the digestive system.																
106. Diarrhea and enteritis (2 years and over)					2	2							6	7		
107. Intestinal parasites					2											
112. Cirrhosis of the liver					1											
114. Other diseases of the liver													2			
115. Diseases of the spleen					1											
118. Appendicitis and abscess of the iliac fossa	1				2	1							1	1		
VI. Diseases of the genito-urinary system and its adnexa.																
119. Acute nephritis					1								1	8		
120. Bright's disease					2	7	1						2	4	1	
123. Diseases of the bladder													1			
127. Metritis														1		
VII. The puerperal state.																
134. Accidents of pregnancy														1		
135. Puerperal hemorrhage														6		
137. Puerperal septicæmia														14		
138. Puerperal albuminuria and convulsions														1		
XIII. External causes.																
164. Fractures													1			
166. Other accidental traumatisms					4	2										
167. Burns and scalds												1	1			
172. Accidental drowning						1										
XIV. Ill-defined diseases.																
179. Causes of death unspecified or ill defined													2	1		
Total	1		2		46	36	3				4	1	223	131	9	
Grand total	1		2		82		3				5		354		9	

Number of deaths, with causes, occurring among residents in the city of Manila—Continued.

Causes of death.	From twenty to twenty-five years.								From twenty-five to thirty years.							
	Americans.		Foreigners.		Filipinos.		Chinese.		Americans.		Foreigners.		Filipinos.		Chinese.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male-	Female.	Male.	Female.	Male.	Female.	Male.	Female.
I. General diseases.																
1. Typhoid fever (abnominal typhus)				1	1	1						1	11	5		
4. Intermittent fever and malarial cachexia			2		24	2					1		20	2	5	
4a. Malaria cachexia					1	2	1						2	2	1	
5. Smallpox														1		
9. Diphtheria croup													2			
10. Influenza					1											
12. Asiatic cholera	1		3		21	9	3				3		25	26	1	
14. Dysentery			3		27	8	10			1	2		29	15	3	
15. Bubonic plague					2									2	1	
17. Leprosy					11	5							8	4		
18. Erysipelas			1		1											
19. Other epidemic diseases (beri-beri)			3		26	37	6				1		25	22	7	
20. Purulent infection and septicæmia													1			
22. Malignant pustule											1			2		
24. Actinomycosis, trichinosis, etc													1			
26. Tuberculosis of the larynx					2	1							1			
27. Tuberculosis of the lungs					50	33	7				2	1	62	72	5	
29. Abdominal tuberculosis					2	3							2			
33. Tuberculosis of other organs					1											
34. General tuberculosis					2	1					1		1			
36. Syphilis						1							1		1	
45. Cancer and other malignant tumors of other organs or of organs not specified						1							1	1		
48. Chronic rheumatism and gout					1									1		
54. Anæmia, chlorosis													2	3	1	
55. Other general diseases	1															
II. Diseases of the nervous system and of the organs of special sense.																
60. Encephalitis					2											
61. Simple meningitis					1	4							2	14		
63. Other diseases of the spinal cord									1							
64. Congestion and hemorrhage of the brain					3	1							3		1	
67. General paralysis					2	1								1		
69. Epilepsy						1										
72. Tetanus			1		2								4			

III. Diseases of the circulatory system.																
77 Pericarditis													2	2		
78. Acute endocarditis						2										
79. Organic diseases of the heart					5	5	5		1				3	10	3	
80. Angina pectoris					5	3							2	8		
81. Diseases of the arteries, atheroma, aneurism, etc													1			
82. Embolism and thrombosis			1										1	1		
86. Other diseases of the circulatory system													1			
IV. Diseases of the respiratory system.																
90. Acute bronchitis					1											
91. Chronic bronchitis													1	1		
92. Broncho-pneumonia					1	1								1		
93. Pneumonia					9	2				1			8	1	1	
94. Pleurisy													1			
95. Congestion and apoplexy of the lungs				1	1	1							2			
98. Pulmonary emphysema													1			
V. Diseases of the digestive system.																
103. Ulcer of the stomach					2											
104. Other diseases of the stomach (cancer excepted)													2	3		
106. Diarrhea and enteritis (2 years and over)					8	6					1		6	14	1	
107. Intestinal parasites														1		
108. Hernias and intestinal obstructions						1										
109. Other diseases of the intestines													2	1		
110. Acute yellow atrophy of the liver													1			
112. Cirrhosis of the liver													2	1		
114. Other diseases of the liver						3							1		1	
116. Simple peritonitis (nonpuerperal)					1	2							4	1		
117. Other diseases of the digestive system (cancer and tuberculosis excepted)													2	1	1	
118. Appendicitis and abscess of the iliac fossa			1		1											
VI. Diseases of the genito-urinary system and its adnexa.																
119. Acute nephritis					2	1	1				1		4	3	1	
120. Bright's disease			1		3	1							2	4		
121. Other diseases of the kidneys and their adnexa	1				2											
122. Calculi of the urinary tract					1								2			
123. Diseases of the bladder													1			
127. Metritis						1										
132. Other diseases of the female genital organs						1										

Number of deaths, with causes, occurring among residents in the city of Manila—Continued.

Causes of death.	From twenty to twenty-five years.								From twenty-five to thirty years.							
	Americans.		Foreigners.		Filipinos.		Chinese.		Americans.		Foreigners.		Filipinos.		Chinese.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
VII. The puerperal state.																
134. Accidents of pregnancy				1		1								2		
135. Puerperal hemorrhage						12								9		
136. Other accidents of labor						1								1		
137. Puerperal septicæmia				1		10								7		
138. Puerperal albuminuria and convulsions						3								1		
140. Other puerperal accidents—sudden death						1										
IX. Diseases of the organs of locomotion.																
146. Nontuberculous diseases of the bones													3			
XIII. External causes.																
157. Suicide by hanging or strangulation					1											
164. Fractures			1		2								1			
166. Other accidental traumatisms			1		2	1			1				5	4		
167. Burns and scalds						2										
169. Sunstroke					1											
171. Electric shock					2	1			1				2			
172. Accidental drowning	1				1								1		1	
176. Other external violence													1			
XIV. Ill-defined diseases.																
179. Causes of death unspecified or ill defined					4	1							5			
Total	4		18	4	238	174	33		4	2	13	2	273	250	35	
Grand total	4		22		412		33		6		15		523		35	

Cause of death.	From thirty to thirty-five years.								From thirty-five to forty years.							
	Americans.		Foreigners.		Filipinos.		Chinese.		Americans.		Foreigners.		Filipinos.		Chinese.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
I. General diseases.																
1. Typhoid fever (abdominal typhus)									1							
4. Intermittent fever and malarial cachexia			1				2						1	1		
4a. Malarial cachexia							1						3	1		
10. Influenza							1							1		
12. Asiatic cholera	2		3		11	5	3		2		2		13	19	1	
14. Dysentery			4		2		2		2						6	
15. Bubonic plague							2								2	
17. Leprosy					3	1							2			
19. Other epidemic diseases (beri-beri)			1		6	23	5				1		22	14	10	
20. Purulent infection and septicæmia					1								2			
26. Tuberculosis of the larynx						2							2	1		
27. Tuberculosis of the lungs			1		115	92	10		1				44	68	12	
29. Abdominal tuberculosis					1								1			
33. Tuberculosis of other organs					1		1									
34. General tuberculosis					2		1				1		2			
36. Syphilis					1											
42. Cancer and other malignant tumors of the female genital organs						1								2		
45. Cancer and other malignant tumors of other organs or of organs not specified			1													
47. Acute articular rheumatism					2								3	3		
48. Chronic rheumatism and gout														2		
54. Anæmia, chlorosis					1								2		1	
55. Other general diseases					2								1			
59. Other chronic poisonings							1								2	
II. Diseases of the nervous system and of the organs of special sense.																
61. Simple meningitis						2							1	8		
63. Other diseases of the spinal cord					2											
64. Congestion and hemorrhage of the brain					4	3							4	1	1	
65. Softening of the brain						1								1		
66. Paralysis without specified cause						1										
67. General paralysis						1										
68. Other forms of mental alienation							1								1	
72. Tetanus					1	2							1		1	

Number of deaths, with causes, occurring amony residents in the city of Manila—Continued.

Cause of death.	From thirty to thirty-five years.								From thirty-five to forty years.							
	Americans.		Foreigners.		Filipinos.		Chinese.		Americans.		Foreigners.		Filipinos.		Chinese.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
III. Diseases of the circulatory system.																
77. Pericarditis					1											
78. Acute endocarditis					1	2	1							2	2	
79. Organic diseases of the heart					3	2	3				2			4		
80. Angina pectoris							3							3	1	
IV. Diseases of the respiratory system.																
88. Diseases of the larynx					1											
90. Acute bronchitis					1		1									
91. Chronic bronchitis													1	2		1
93. Pneumonia			2		5				1				3	1		
97. Asthma					1	1							1	1		
99. Other diseases of the respiratory system (phthisis excepted)				1												
V. Diseases of the digestive system.																
101. Diseases of the pharynx	1						1									
102. Diseases of the esophagus															1	
103. Ulcer of the stomach			1										1		1	
104. Other diseases of the stomach (cancer excepted)													1	2		
106. Diarrhea and enteritis (2 years and over)	1		1		6	11					1		3	6		
108. Hernia and intestinal obstructions					2		1									
109. Other diseases of the intestines													1		1	
110. Acute yellow atrophy of the liver					1		1						1			
112. Cirrhosis of the liver					1	2							2		1	
114. Other diseases of the liver	1								1		1		2			
115. Diseases of the spleen			1		1											
116. Simple peritonitis (nonpuerperal)													2	3		
118. Appendicitis and abscess of the iliac fossa					1		1						1		1	
VI. Diseases of the genito-urinary system and its adnexa.																
119. Acute nephritis					3	3	1							4		
120. Bright's disease					4	9	1		1		2		4	2		
122. Calculi of the urinary tract													2			

123. Diseases of the bladder															1	
127. Metritis						1										
131. Cysts and other tumors of the ovary														1		
VII. The puerperal state.																
135. Puerperal hemorrhage						2								8		
137. Puerperal septicæmia						9								4		
138. Puerperal albuminuria and convulsions						1										
VIII. Diseases of the skin and cellular tissue.																
142. Gangrene													1			
143. Furuncle													1			
XIII. External causes.																
155. Suicide by poison			1													
157. Suicide by hanging or strangulation														1		
164. Fractures					1	1										
166. Other accidental traumatisms	1				6	1	3									
172. Accidental drowning	1								1		1		1		2	
176. Other external violence															2	
XIV. Ill-defined diseases.																
179. Causes of death unspecified or ill defined					2	1	1				1		1			
Total	7		17		199	180	48		10		12		133	161	50	1
Grand total	7		17		379		48		10		12		294		51	

Cause of death.	From forty to forty-five years.								From forty-five to fifty years.							
	Americans.		Foreigners.		Filipinos.		Chinese.		Americans.		Foreigners.		Filipinos.		Chinese.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
I. General diseases.																
1. Typhoid fever (abdominal typhus)				1	2	1					1		1	1		
4. Intermittent fever and malarial cachexia					5	1	6						5	3	5	
4a. Malarial cachexia						1							1			
10. Influenza							2									
12. Asiatic cholera		1	3		5	4	1		1		1		9	5	1	
14. Dysentery	2				3	.5	5						2	5	5	1
15. Bubonic plague							1							1		
17. Leprosy					4	7							1	1		

Number of deaths, with causes, occurring among residents in the city of Manila—Continued.

Cause of death.	From forty to forty-five years.								From forty-five to fifty years.							
	Americans.		Foreigners.		Filipinos.		Chinese.		Americans.		Foreigners.		Filipinos.		Chinese.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
I. General diseases—Continued.																
19. Other epidemic diseases (beri-beri)					1		9				1		4	1	3	
20. Purulent infection and septicæmia						1			1				1			
22. Malignant pustule														1		
26. Tuberculosis of the larynx						1							1	1		
27. Tuberculosis of the lungs	1			2	72	13	10						63	8	14	
29. Abdominal tuberculosis					1	1			1		1		1	2		
33. Tuberculosis of other organs					1											
34. General tuberculosis					2								2			
39. Cancer and other malignant tumors of the buccal cavity													1			
40. Cancer and other malignant tumors of the stomach and liver													1	2		
41. Cancer and other malignant tumors of peritoneum, intestines, and rectum													1		1	
42. Cancer and other malignant tumors of the female genital organs						1								2		
43. Cancer and other malignant tumors of the breast						1										
45. Cancer and other malignant tumors of other organs or of organs not specified						4							2	1		
47. Acute articular rheumatism													1			
48. Chronic rheumatism and gout													2	6		
50. Diabetes													1	1		
51. Exophthalmic goiter														1		
56. Acute and chronic rheumatism	1								1		1					
II. Diseases of the nervous system and of the organs of special sense.																
61. Simple meningitis						1							2	1		
63. Other diseases of the spinal cord						1							1			
64. Congestion and hemorrhage of the brain					5	4							2	6	1	
65. Softening of the brain						1								1		
67. General paralysis													3	1		
68. Other forms of mental alienation						1	1						1		1	
69. Epilepsy						2										
72. Tetanus						1										
74. Other diseases of the nervous system							1									

III. Diseases of the circulatory system.																
77. Pericarditis													1			
79. Organic diseases of the heart					1	3	2				3		2	4	2	
80. Anginia pectoris			1		2		1						1	1		
81. Diseases of the arteries (atheroma, aneurism, etc.)			1			1							2			
IV. Diseases of the respiratory system.																
90. Acute bronchitis							2									
91. Chronic bronchitis					1									5	2	
92. Broncho-pneumonia													1			
93. Pneumonia					5	1							4			
94. Pleurisy						1										
95. Congestion and apoplexy of the lungs														1		
97. Asthma							1						1	2	2	
V. Diseases of the digestive system.																
100. Diseases of the mouth and its adnexa					1											
103. Ulcer of the stomach													1	1		
104. Other diseases of the stomach (cancer excepted)					1	2										
106. Diarrhea and enteritis (2 years and over)			1		1	2					2		6	4	1	
108. Hernia and intestinal obstructions					2		2									
109. Other diseases of the intestines			1													
112. Cirrhosis of the liver					3											
114. Other diseases of the liver				1	1		2		1		1			1	1	
116. Simple peritonitis (nonpuerperal)													1			
117. Other diseases of the digestive system (cancer and tuberculosis excepted)			1													
VI. Diseases of the genito-urinary system and its adnexa.																
119. Acute nephritis					1								1	1		
120. Bright's disease					4	4	1						2	5	1	
121. Other diseases of the kidneys and their adnexa						1										
123. Diseases of the bladder					1											
VII. The puerperal state.																
135. Puerperal hemorrhage						1										
VIII. Diseases of the skin and cellular tissue.																
142. Gangrene														2		
IX. Diseases of the organs of locomotion.																
146. Nontuberculous diseases of the bones											1					

Number of deaths, with causes, occurring among residents in the city of Manila—Continued.

Cause of death.	From forty to forty-five years.								From forty-five to fifty years.							
	Americans.		Foreigners.		Filipinos.		Chinese.		Americans.		Foreigners.		Filipinos.		Chinese.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
XIII. External causes.																
164. Fractures					1		1							1		
XIV. Ill-defined diseases.																
178. Sudden death													1			
179. Causes of death unspecified or ill defined							1						2		1	
Total	4	1	8	4	126	68	49		5		12		135	79	41	1
Grand total	5		12		194		49		5		12		214		42	

Cause of death.	From fifty upward.								Unknown.							
	Americans.		Foreigners.		Filipinos.		Chinese.		Americans.		Foreigners.		Filipinos.		Chinese.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
I. General diseases.																
1. Typhoid fever (abdominal typhus)					3	3										
4. Intermittent fever and malarial cachexia			1		20	4	1		1				2			
4a. Malarial cachexia					2								1			
10. Influenza					1		1									
12. Asiatic cholera					17	12	1						1			
14. Dysentery					50	13	4									
15. Bubonic plague					1										1	
17. Leprosy				1	3	2										
19. Other epidemic diseases (beri-beri)					32	6	4									
20. Purulent infection and septicæmia	1					2								1		
22. Malignant pustule					1	1										
26. Tuberculosis of the larynx					4	3										
27. Tuberculosis of the lungs			5	1	115	74	19						2			
29. Abdominal tuberculosis			1		2	5										

33. Tuberculosis of other organs				1												
34. General tuberculosis					2	1										
35. Scrofula						2										
39. Cancer and other malignant tumors of the buccal cavity					2	3										
40. Cancer and other malignant tumors of the stomach and liver						1										
42. Cancer and other malignant tumors of the female genital organs						2										
43. Cancer and other malignant tumors of the breast						4										
45. Cancer and other malignant tumors of other organs or of organs not specified					4	2										
47. Acute articular rheumatism					2											
48. Chronic rheumatism and gout					20	19										
50. Diabetes					1	2										
51. Exophthalmic goiter						1										
54. Anæmia, chlorosis			1		2	7		1								
56. Acute and chronic alcoholism					1											
II. Diseases of the nervous system and of the organs of special sense.																
61. Simple meningitis					3	2							1			
62. Progressive locomotor ataxia			1													
63. Other diseases of the spinal cord					1	1										
64. Congestion and hemorrhage of the brain			1		24	20							1			
65. Softening of the brain					3	1										
66. Paralysis without specified cause			1		1											
72. Tetanus					2	1										
III. Diseases of the circulatory system.																
78. Acute endocarditis					7	2										
79. Organic diseases of the heart					13	14	5									
80. Angina pectoris					5	4	2									
81. Diseases of the arteries, atheroma, aneurism, etc			2	1	7	10										
82. Embolism and thrombosis					1	1										
IV. Diseases of the respiratory system.																
90. Acute bronchitis					1	3	2									
91. Chronic bronchitis			1		12	15	17									
92. Broncho-pneumonia					2	2										
93. Pneumonia					10	2										
94. Pleurisy					1	1										
97. Asthma			1		9	3	2									
99. Other diseases of the respiratory system (phthisis excepted)						1										

Number of deaths, with causes, occurring among residents in the city of Manila—Continued.

Cause of death.	From fifty upward.								Unknown.							
	Americans.		Foreigners.		Filipinos.		Chinese.		Americans.		Foreigners.		Filipinos.		Chinese.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
V. Diseases of the digestive system.																
103. Ulcer of the stomach			1		1	2										
106. Diarrhea and enteritis (2 years and over)			2		24	25										
108. Hernia and intestinal obstructions					3	3	1									
109. Other diseases of the intestines						1										
110. Acute yellow atrophy of the liver					2											
111. Hydatid tumors of the liver						1										
112. Cirrhosis of the liver					2	3	2									
113. Biliary calculi					2	2	1									
114. Other diseases of the liver					1	2										
118. Appendicitis and abscess of the iliac fossa					1											
VI. Diseases of the genito-urinary system and its adnexa.																
119. Acute nephritis			1		5	4							1			
120. Bright's disease			1	1	9	17							2	1		
121. Other diseases of the kidneys and their adnexa											1					
124. Diseases of the urethra, urinary abscess, etc					1											
125. Diseases of the prostate					1											
VIII. Diseases of the skin and cellular tissue.																
142. Gangrene					2											
144. Acute abscess, phlegmon					1	3										
XII. Old age.																
154. Senile debility				1	76	148										
XIII. External causes.																
160. Suicide by cutting instruments	1															
164. Fractures															1	
166. Other accidental traumatisms					3	1	1						1	1		

XIV. Ill-defined diseases.																
177. Dropsy			1													
179. Causes of death unspecified or ill defined					3	3										
Total	2		21	5	525	467	63	1	1		1		12	3	2	
Grand total	2		26		992		64		1		1		15		2	

Cause of death.	Total.								Grand total.
	Americans.		Foreigners.		Filipinos.		Chinese.		
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
I. General diseases.									
1. Typhoid fever (abdominal typhus)	1		2	3	33	17			56
4. Intermittent fever and malarial cachexia	2	1	6		121	38	20	1	189
4a. Malarial cachexia					18	9	5		32
5. Smallpox					3	2			5
6. Measles					1				1
8. Whooping cough					2	3			5
9. Diphtheria and croup					8	2			10
10. Influenza					4	3	6		13
12. Asiatic cholera	6	1	17		183	127	11		345
14. Dysentery	4	1	9		169	82	35	1	301
15. Bubonic plague					7	5	8		20
17. Leprosy				1	38	21			60
18. Erysipelas			1		2	3			6
19. Other epidemic diseases (beri-beri)			7		199	154	46		406
20. Purulent infection and septicæmia	2		1		16	9			28
21. Glanders and farcy					1				1
22. Malignant pustule			1		1	4			6
24. Actinomycosis, trichinosis, etc					1				1
26. Tuberculosis of the larynx					11	12			23
27. Tuberculosis of the lungs	2		10	4	661	453	78	1	1,209
28. Tuberculosis of the meninges			1		26	14			41
29. Abdominal tuberculosis	1		2		22	18			43
30. Pott's disease						1			1
33. Tuberculosis of other organs					6	1	1		8
34. General tuberculosis			2		22	4	1		29
35. Scrofula					5	5	1		11
36. Syphilis					2	2	1		5
37. Gonorrhea (5 years and over)					1				1
39. Cancer and other malignant tumors of the buccal cavity					3	3			6
40. Cancer and other malignant tumors of the stomach and liver					1	4			5
41. Cancer and other malignant tumors of peritoneum, intestines, and rectum					1		1		2
42. Cancer and other malignant tumors of the female genital organs						8			8

Number of deaths, with causes, occurring among residents in the city of Manila—Continued.

Cause of death.	Total.								Grand total.
	Americans.		Foreigners.		Filipinos.		Chinese.		
	Male.	Female.	Male.	Female.	Male.	Female-	Male.	Female.	
I. General diseases—Continued.									
43. Cancer and other malignant tumors of the breast						5			5
45. Cancer and other malignant tumors of other organs or of organs not specified			1		8	10			19
47. Acute articular rheumatism					8	5			13
48. Chronic rheumatism and gout					24	28			52
49. Scuvy					1	1			2
50. Diabetes					2	3			5
51. Exophthalmic goiter						2			2
54. Anæmia, chlorosis			1		7	10	2	2	22
55. Other general diseases	2				3				5
56. Acute and chronic alcoholism	2		1		1				4
59. Other chronic poisonings							3		3
II. Diseases of the nervous system and of the organs of special sense.									
60. Encephalitis					2				2
61. Simple meningitis	1		3	1	210	169			384
61a. Epidemic cerebro-spinal miningitis						1			1
62. Progressive locomotor ataxia			1						1
63. Other diseases of the spinal cord	1				4	2			7
64. Congestion and hemorrhage of the brain			1		49	40	3		93
65. Softening of the brain					3	5			8
66. Paralysis without specified cause			1		1	1			3
67. General paralysis					5	6			11
68. Other forms of mental alienation					1	1	4		6
69. Epilepsy					1	3	1		5
71. Convulsions (under 5 years)	1			1	1,185	1,045	6	4	2,242
72. Tetanus	1		1		68	64	1		135
74. Other diseases of the nervous system							1		1
75. Diseases of the eye and its adnexa						1			1
76. Diseases of the ear					1	1			2
III. Diseases of the circulatory system.									
77. Pericarditis					4	3			7
78. Acute endocarditis					11	10	3		24
79. Organic diseases of the heart	1		5		36	47	20		109
80. Angina pectoris			1		17	24	7		49
81. Diseases of the arteries, atheroma, aneurism, etc			3	1	10	11			25

82. Embolism and thrombosis			1		3	2			6
85. Hemorrhages	1				2	1			4
86. Other diseases of the circulatory system					1				1
IV. Diseases of the respiratory system.									
88. Diseases of the larynx					4	3			7
90. Acute bronchitis					259	220	6		485
91. Chronic bronchitis			1	1	153	139	19	1	314
92. Broncho-pneumonia		2		1	21	17			41
93. Pneumonia	1	1	2		59	8	1		72
94. Pleurisy					3	2			5
95. Congestion and apoplexy of the lungs	1		1	1	13	9			25
97. Asthma			1		13	7	5		26
98. Pulmonary emphysema					1				1
99. Other diseases of the respiratory system (phthisis excepted)					1	1			2
V. Diseases of the digestive system.									
100. Diseases of the mouth and its adnexa			1		2				3
101. Diseases of the pharynx	1				1	1	1		4
102. Diseases of the esophagus							1		1
103. Ulcer of the stomach			2		6	3	1		12
104. Other diseases of the stomach (cancer excepted)					23	23			46
105. Diarrhea and enteritis (under 2 years)	1	1		2	162	139		1	306
105a. Chronic diarrhea and enteritis (under 2 years)					122	74			196
106. Diarrhea and enteritis (2 years and over)	1		8		205	213	2		429
107. Intestinal parasites					11	7			18
108. Hernia and intestinal obstructions					9	7	4		20
109. Other diseases of the intestines			1		4	2	1		8
110. Acute yellow atrophy of the liver					5		1		6
111. Hydatid tumors of the liver						1			1
112. Cirrhosis of the liver					12	6	3		21
113. Biliary calculi					2	2	1		5
114. Other diseases of the liver	3		2	1	8	7	4		25
115. Diseases of the spleen			1		2				3
116. Simple peritonitis (nonpuerperal)					11	11			22
117. Other diseases of the digestive system (cancer and tuberculosis excepted)			1						1
118. Appendicitis and abscess of the iliac fossa	1		1		9	3	3		17
VI. Diseases of the genito-urinary system and its adnexa.									
119. Acute nephritis	1		2		27	29	3		62
120. Bright's disease	1		4	1	48	56	5		115
121. Other diseases of the kidneys and their adnexa	1		1		2	1			5
122. Calculi of the urinary tract					5				5
123. Diseases of the bladder					3	1	1		5
124. Diseases of the urethra, urinary abscess, etc					1				1
125. Diseases of the prostate					1				1
127. Metritis						3			3
131. Cysts and other tumors of the ovary						1			1
132. Other diseases of the female genital organs						1			1

Number of deaths, with causes, occurring among residents in the city of Manila—Continued.

Cause of death.	Total.								Grand total.
	Americans.		Foreigners.		Filipinos.		Chinese.		
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
VII. The puerperal state.									
134. Accidents of pregnancy				1		4			5
135. Puerperal hemorrhage						38			38
136. Other accidents of labor						2			2
137. Puerperal septicæmia				1		44			45
138. Puerperal albuminuria and convulsions						6			6
140. Other puerperal accidents—sudden death						1			1
VIII. Diseases of the skin and cellular tissue.									
142. Gangrene		1			3	2			6
143. Furuncle					1				1
144. Acute abscess, phlegmon					1	3			4
145. Other diseases of the skin and its adnexa					4	1			5
XI. Diseases of the organs of locomotion.									
146. Nontuberculous diseases of the bones			1		9	7			17
147. Arthritis and other diseases of the joints (tuberculosis and rheumatism excepted)					1	1			2
X. Malformations.									
150. Congenital malformations (stillbirths excepted)					7	8			15
XI. Early infancy.									
151. Congenital debility, icterus, and sclerema		1			254	171			426
152. Other diseases peculiar to early infancy					20	9			29
153. Lack of care				1	26	32			59
XII. Old age.									
154. Senile debility				1	76	148			225
XIII. External causes.									
155. Suicide by poison			1						1
157. Suicide by hanging or strangulation					1	1			2
160. Suicide by cutting instruments	1								1
164. Fractures			1		6	2	2		11

166. Other accidental traumatisms	2		1		22	10	4		39
167. Burns and scalds				1	6	10			17
169. Sunstroke					1				1
171. Electric shocks	1				4	1			6
172. Accidental drowning	3		1		5	4	3		16
173. Inanition (starvation)					1	5			6
176. Other external violence					1		2		3
XIV. Ill-defined diseases.									
177. Dropsy			1			2			3
178. Sudden death					1				1
179. Causes of death unspecified or ill defined			1		21	11	3		36
Total	47	9	115	23	4,915	4,025	341	11	9,486
Grand total	56		138		8,940		352		9,486

Deaths, by occupations.

Occupation.	Number.	
	Male.	Female.
Professional:		
Architects, artists, teachers of art, etc	8	1
Clergymen, priests, nuns, etc	8	5
Engineers and surveyors	8	------
Journalists	3	------
Lawyers	5	------
Musicians and teachers of music	14	1
Nurses and midwives	------	1
Physicians and surgeons	2	------
Teachers (schools)	6	1
Others of this class	7	------
Clerical and official:		
Bookkeepers, clerks, and copyists	148	------
Bankers, brokers, and officials of companies	2	------
Collectors, auctioneers, and agents	6	------
Stenographers and typewriters	1	1
Telegraph and telephone operators	1	------
Others of this class	2	------
Mercantile and trading:		
Apothecaries, pharmacists, etc	8	------
Commercial travelers	1	1
Merchants and dealers	66	21
Hucksters and peddlers	4	3
Shopkeepers	22	48
Others of this class	------	------
Public entertainment:		
Hotel and boarding-house keepers	------	1
Saloon keepers, liquor dealers, bartenders, and restaurant keepers	2	------
Personal service, police, and military:		
Barbers and hairdressers	18	------
Janitors and sextons	21	------
Policemen, watchmen, and detectives	20	------
Soldiers, sailors, and marines	10	------
Others of this class	10	------
Laboring and servant:		
Laborers (not agricultural)	587	7
Launderers	6	186
Servants	94	33
Manufacturing and mechanical industry:		
Artificial flower and paper-box makers	------	1
Bakers and confectioners	8	------
Blacksmiths	11	------
Boot, shoe, and slipper makers	9	------
Brewers, distillers, and rectifiers	------	------
Butchers	6	------
Manufacturing and mechanical industry—Continued.		
Cabinetmakers and upholsterers	4	------
Carpenters and joiners	98	------
Cigar makers and tobacco workers	32	83
Clock and watch repairers, jewelers, etc	27	------
Compositors, printers, etc	15	------
Coopers	------	------
Embroiderers	3	12
Engineers and firemen (not locomotive)	21	------
Glass blowers and glass workers	1	------
Hat and cap makers	3	------
Iron and steel workers	3	------
Leather makers	------	------
Leather workers	2	------
Machinists	7	------
Marble and stone cutters	1	------
Masons (brick and stone)	5	------
Mill and factory operatives (textiles)	1	8
Millers (flour and grist)	------	------
Milliners	------	1
Painters, glaziers, and varnishers	28	------
Plumbers, gas and steam fitters	2	------
Tailors, dressmakers, and seamstresses	36	182
Tinners and tinware makers	8	------
Others of this class	30	3
Agricultural, transportation, and other outdoor:		
Boatmen and canalmen	35	------
Draymen, drivers, and teamsters	48	------
Farmers, planters, and farm laborers	51	3
Gardeners, florists, nurserymen, etc	10	2
Livery stable keepers and hostlers	2	------
Lumbermen and raftsmen	1	------
Miners and quarrymen	7	------
Sailors, pilots, fishermen, and oystermen	111	5
Steam railroad employees	1	------
Stock raisers, herders, and drovers	2	------
Others of this class	2	------
All other occupations	55	31
Total	1,771	641
Grand total	2,412	

Bilibid Prison sick report from September 1, 1905, to June 30, 1906.

Disease.	Total sick as per last report.	Taken since last report.	Died.	Discharged.	Total number sick this date.
Hospital "A:"					
Abscess	----------	60	2	57	1
Asiatic cholera	5	14	11	7	1
Adenitis, inguinal	----------	12	----------	12	----------
Amputation, third toe of each foot	----------	1	----------	1	----------
Anemia	----------	11	----------	11	----------
Asthma	----------	4	----------	4	----------
Beriberi	----------	132	21	108	3
Blastomycotica, dermatitis	----------	1	----------	----------	1
Bronchitis, acute	----------	125	6	114	5
Cellulitis	----------	35	----------	34	1

Bilibid Prison sick report from September 1, 1905, to June 30, 1906—Continued.

Disease.	Total sick as per last report.	Taken since last report.	Died.	Discharged.	Total number sick this date.
Hospital "A"—Continued.					
Circumcision		86		78	8
Colic, gastric		3		3	
Colic, intestinal		16		15	1
Conjunctivitis		257		237	20
Constipation		94		94	
Corneal opacity		2		1	1
Coryza		116		115	1
Cystitis, acute purulent		3		3	
Dermatitis		6		6	
Dhobie itch		72		69	3
Diarrhea		98	4	94	
Dislocation of shoulder		1		1	
Dysentery, acute catarrhal		24		22	2
Dysmenorrhea		6		6	
Dyspepsia		127		125	2
Epilepsy		9		9	
Filaria diurna		1			1
Fistula		31		30	1
Furuncle		4	1	3	
General debility		31	2	29	
Gonorrhea	1	5		6	
Hepatic congestion		1		1	
Hernia		5		5	
Hydrocele		14		13	1
Intestinal amebiasis	12	170	27	146	9
Intestinal obstruction		1	1		
Malaria	4	312	34	271	11
Malaise		7		7	
Mastitis		2		2	
Melancholia, acute		2		2	
Neuralgia		6		6	
Nephritis, acute		16	3	13	
Otitis purulent		4		4	
Parotitis		8		8	
Phlebitis		1		1	
Pneumonia, lobar	4	70	36	37	1
Rheumatism		53		51	2
Scabies		1		1	
Senile debility	1	2	2	1	
Synovial effusion, left knee		2		1	1
Syphilis		1		1	
Tenosynovitis		1		1	
Tuberculosis	1	200	15	183	3
Uncinariasis	10	74	5	71	8
Ulcers		14		12	2
Venereal warts		2		2	
Wounds		99		94	5
Observation ward		215	1	214	
Eye ward		161		161	
Abortion, threatened		1		1	
Alcoholism, acute		2	1	1	
Contusions		10		10	
Dementia		4		3	1
Emphysema, chronic tubercular		1	1		
Gastritis		4		4	
Hemorrhoids		6		6	
Herpes zoster		4		4	
Leprosy		4		3	1
Pharyngitis		3		3	
Urine, retention of		1		1	
Acne pustulosa of face		4		3	1
Ascaris lumbricoides		1		1	
Cystitis		1		1	
Epistaxis		1		1	
Indigestion, intestinal		3	1	2	
Nephritis, chronic interstitial		2	1		1
Peritonitis		4	4		
Septicemia		1	1		
Acute endocarditis	1			1	
Acute enteritis	1			1	
Burns		3		3	
Pulmonary congestion		10		10	
Endocarditis		2	2		
Varicela		8		8	
Dermatitis		1		1	
Dysentery		37	3	34	
Fecal impaction		4		4	
Acute influenza		1		1	
Renal calculi		1		1	

Bilibid Prison sick report from September 1, 1905, to June 30, 1906—Continued.

Disease.	Total sick as per last report.	Taken since last report.	Died.	Discharged.	Total number sick this date.
Hospital "A"—Continued.					
Mercurial poisoning		1		1	
Child birth		1		1	
Fatty degeneration of heart and phthisis		1	1		
External hemorrhoids		1		1	
Sprain foot		1		1	
Purulent ophthalmia		4		4	
Cervical adenitis (tubercular)		2		2	
Scarlatina		1		1	
Vesical calculus (medium lithotomy)		1		1	
Traumatism		2		2	
Hepatic amebiasis		1		1	
Acute indigestion		8		8	
Strongyloides intestinalis		1		1	
Orchitis		6		6	
Laryngitis		3		3	
Adenitis of the groin		1		1	
Acute cardiac dilatation		2	2		
Amenorrhea		3		3	
Hicough		1		1	
Paraphimosis		2		2	
Pemphigus		1		1	
Stricture, urethral		3		3	
Chancre		1		1	
Chancroids		2		2	
Cicatrix, left eye		1		1	
Colitis, acute		2		2	
Dupuytren's contraction of left hand		1		1	
Dysuria		1		1	
Enucleation of eye		2		2	
Fever, undetermined		1	1		
Gastritis, chronic		2		2	
Hemicrania, idiopathic		2		2	
Icterus		1		1	
Lumbricus		1		1	
Onychogriposis		3		3	
Panaris		1		1	
Paronychia		1		1	
Pterygium, left eye		1		1	
Synovitis		4		4	
Tabes dorsalis		1		1	
Tenia imbricata		2			2
Bunions		1		1	
Clavus		3		3	
Corneal ulcer		1		1	
Cysts, sebaceous		3		3	
Dengue		12		12	
Enterocolitis, acute		2		2	
Helminthiasis		42		37	5
Hepatitis		1		1	
Hysteria		3		2	1
Miliaria rubra		1		1	
Neurasthenia, acute		1		1	
Opium habit		12		12	
Panopthalmitis		1			1
Variola		3		3	
Carbuncles		1		1	
Hemoptysis		1		1	
Hyperemesis		1	1		
Malingering		1		1	
Meningitis, simple		1		1	
Pericarditis		1	1		
Paraplegia, spastic		1			1
Sprain of elbow		1		1	
Stomatitis, acute		1		1	
Tonsilitis, acute		1		1	
Undiagnosed	7	178	5	177	3
Total	47	3,306	196	3,045	112
Hospital "B" (for tuberculosis and beriberi patients)	76	233	100	52	157
Grand total	123	3,539	296	3,097	269

Bilibid Prison report of deaths.

Disease.	Presidio, Filipinos, male.	Carcel.			Total.	Condition.				Cemetery del Norte.
		Filipinos.		Chinese, male.						
		Male.	Female.			Single.	Married.	Widower.	Unknown.	
Intermittent fever and malarial cachexia	24	9			33	11	18	4		33
Malarial cachexia	1				1	1				1
Asiatic cholera	24	6			30	21	9			30
Dysentery	36	13			49	18	28	3		49
Other epidemic diseases (beriberi)	16	9	1		26	13	11	2		26
Purulent infection and septicæmia	2	1			3	1	2			3
Actinomycosis, trichinosis, etc		1			1	1				1
Tuberculosis of the lungs	123	35	1		159	72	80	7		159
Abdominal tuberculosis	1				1		1			1
Tuberculosis of other organs	1				1	1				1
General tuberculosis	5	3			8	5	3			8
Acute and chronic alcoholism		1			1				1	1
Simple meningitis	1				1		1			1
Acute endocarditis	1				1		1			1
Organic diseases of the heart	3				3	1	2			3
Diseases of the arteries, atheroma, anurism etc	1				1		1			1
Other diseases of the circulatory system	1				1		1			1
Acute bronchitis	3				3	1	2			3
Chronic bronchitis	1	1			2		1	1		2
Pneumonia	32	13			45	7	30	8		45
Congestion and apoplexy of the lungs	2				2	1	1			2
Diarrhea and enteritis (2 years and over)	5	1			6	3	3			6
Intestinal parasites	3	1			4	3	1			4
Hernia and intestinal obstructions	1				1		1			1
Acute yellow atrophy of the liver	1				1		1			1
Simple peritonitis (nonpuerperal)	1	2		1	4	2	2			4
Acute nephritis	2	1	1		4	1	2	1		4
Bright's disease	3				3		3			3
Other diseases of the kidneys and their adnexa	1				1	1				1
Accidents of pregnancy			1		1	1				1
Senile debility	1	1			2	1		1		2
Other accidental traumatisms	1	1			2		2			2
Causes of death unspecified or ill defined		2			2	1	1			2
Total	297	101	4	1	403	167	208	27	1	403

Report of prescriptions filled at the municipal dispensary.

Health district.	Americans.			Foreigners, adults.		Filipinos.				Chinese, adults, male.	Total.
	Adults.		Children, male.			Adults.		Children.			
	Male.	Female.		Male.	Female.	Male.	Female.	Male.	Female.		
No. 1, San Nicolas	16			24		983	816	390	267	18	2,514
No. 2, Tondo	40			15	2	2,329	2,442	740	553	6	6,127
No. 3, Quiapo	5			11		1,134	849	480	332	1	2,812
No. 4, Santa Cruz	4			5		857	506	235	148	11	1,766
No. 5, Sampaloc	2					1,788	1,091	1,237	688	1	4,807
No. 6, Intramuros	316	160		3		1,640	1,740	573	388		4,820
No. 7, Paco, etc	44	44	4	3		1,674	1,178	680	599	3	4,229
Total	427	204	4	61	2	10,405	8,622	4,335	2,975	40	27,075

The municipal dispensary has also supplied 3 requisitions of health station No. 1 and 247 of No. 2.

Report of sick and wounded poor attended by municipal physicians.

Health districts and physicians.	Americans.		Foreigners.			Filipinos.			
	Adults, male.	Children, male.	Adults.		Children, male.	Adults.		Children.	
			Male.	Female.		Male.	Female.	Male.	Female.
No. 1, San Nicolas, Dr. F. Herrera	16		5			203	177	75	83
No. 2, Tondo, Dr. V. Pantoja	1		3			706	678	223	168
No. 3, Quiapo, Dr. P. Gabriel	2		2			310	305	187	126
No. 4, Santa Cruz, Dr. C. Reyes	2	1	4			260	267	127	95
No. 5, Sampaloc, Dr. F. Castañeda			1			502	742	516	483
No, 6. Intramuros, Dr. V. Cavanna	10		7	3	2	594	814	263	204
No. 7, Paco, etc., Dr. J. B. Cabarrús			2			383	323	199	156
Total	31	1	24	3	2	2,958	3,306	1,590	1,315

Health districts and physicians.	Chinese, adults, male.	Total.	Cured.		Deaths.		Number of visits.
			Male.	Female.	Male.	Female.	
No. 1, San Nicolas, Dr. F. Herrera	8	567	159	149	8	14	1,754
No. 2, Tondo, Dr. V. Pantoja	3	1,782	685	626	84	27	6,515
No. 3, Quiapo, Dr. P. Gabriel	1	933	142	125	49	37	1,618
No. 4, Santa Cruz, Dr. C. Reyes	9	765	239	234	47	39	3,014
No. 5, Sampaloc, Dr. F. Castañeda	3	2,247	331	452	109	90	3,861
No. 6, Intramuros, Dr. V. Cavanna		1,897	499	631	46	28	6,993
No. 7, Paco, etc., Dr. J. B. Cabarrús	4	1,067	315	236	61	57	2,833
Total	28	9,258	2,370	2,453	354	292	26,588

Report of San Lazaro Hospitals.

LEPER DEPARTMENT.

Status.	Americans.		Europeans.		Filipinos.		Chinese.		Others.		Total.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
In hospital at last report				1	144	94	1				240
Received					50	27	1				78
Discharged					5	2	1				8
Deaths					38	21					59
Transferred				1	6	3					10
Escaped					1	4					5
Remaining in hospital					144	91	1				236

INSANE DEPARTMENT.

In hospital at last report			3		53	13	1		1		71
Received	6		2		53	15	1		4		81
Discharged	4		3		29	10			1		47
Deaths	1				10	2					13
Transferred						1					1
Escaped											
Remaining in hospital	1		2		67	15	2		4		91

Burials.

Cemeteries.	Number.	Cemeteries.	Number.
Norte (Government)	5,685	Chinese	407
Paco, General (Government)	350	Crematory	53
Santa Cruz	91	American National	19
Binondo	350	San Pedro Macati	6
Balic-balic	1,307	Embalmed and shipped	10
Maytubig	301	Preserved in alcohol (fetuses)	4
Malate	592	Transferred to provinces	4
Pandacan (Romano)	72	Tondo	1
Pandacan (Filipino)	202		
Santa Ana	369	Total	[a]9,823

[a] Includes 15 dead bodies brought from the provinces, 1 remains unearthed, and 321 stillbirths not included in the mortality returns.

Disinterments.

Cemeteries.	Number.	Cemeteries.	Number.
Paco	111	Tondo	9
Santa Cruz	95	Loma	1
Binondo	9	Norte	5
Malate	14	Pandacan (Romano)	2
Chinese	121	American National	76
Balic-balic	5		
Sampaloc	1	Total	449

Report of Crematory.

Disposition.	Paco Crematory.	Disposition.	Paco Crematory.
Animals cremated:		Animals cremated—Continued.	
American horses	129	American colt	1
American mules	47	Australian colt	3
Australian horses	59	Chinese colt	1
Chinese horses	7	Steers	149
Chinese mules	10	Bulls	73
Native ponies	535	Kangaroos	1
Carabaos	191	Snakes	1
Cows	240		
Calves	77	Total	100,650
Goats	34		
Dogs	1,684	Loads cremated:	
Cats	223	Garbage	9,180
Rats	92,721	Trade refuse	338
Ferrets	9	Organic matter	369
Sheep	12	Market refuse	587
Monkeys	67	Waste	2,648
Fowls	3,729	Condemned goods	1,039
Domestic birds	89	Beach refuse	5
Deer	29	Logs	8
Pigs	526	Fire woods	2
Wolves	1		
Eagles	2	Total	14,176

Report of the operations of the pail-conservancy system.

PAIL COLLECTIONS.

Where collected.	Number of installations.	Number of installations in use.	Pails in use.	Pails cleaned.
Private houses	2,606	1,310	1,779	833,484
Public buildings	91	51	247	58,502
Midden sheds	70	69	1,551	879,405
Military buildings	19	11	144	17,439
Mariquina	136	118	148	47,167
Total	2,922	1,554	3,869	1,835,997

Report of the operations of the pail-conservancy system—Continued.

VAULTS CLEANED.

Where cleaned.	Cleaned by odorless excavators.		
	Vaults cleaned.	Loads removed.	Gallons removed.
Private houses	2,284	3,315	1,657,500
Public buildings	159	2,707	1,353,500
Military buildings	41	398	199,000
Total	2,484	6,420	3,210,000

Report of action taken on licenses.

Business for which license is desired.	License applications approved.	License applications disapproved.	Total applications acted upon.
Distilleries	8		8
Liquor:			
First-class bars	36	1	37
Second-class bars	13		13
Lodging houses	10		10
Restaurants	197	16	213
Native wine	58	46	104
Hotels	7		7
Liquor, first-class restaurants	23		23
Breweries	1		1
Boarding houses	4		4
Total	357	63	420

General inspection of houses, premises, vaults, etc., with improvements ordered, disinfected, whitewashed, cleaned, etc., by medical inspectors, sanitary inspectors, and assistant sanitary inspectors.

1.	Inspections of houses by the sanitary inspectors	31,117
2.	Reinspections of houses for verification of work ordered	5,345
3.	Inspections of houses by the assistant sanitary inspectors and sanitary policemen	456,403
4.	Reinspections of houses by the assistant sanitary inspectors and sanitary policemen	88,200
4a.	Houses where work ordered has been completed	3,798
5.	Houses ordered cleaned (written)	5
6.	Houses ordered cleaned (verbal)	87,736
7.	Houses cleaned	78,193
8.	Houses ordered whitewashed and painted	100
9.	Houses whitewashed and painted	67
10.	Number of houses disinfected	1,702
11.	Number of houses recommended condemned and removed	110
12.	Number of houses condemned and removed	4
13.	Number of localities where "squatters" are located	565
14.	Number of samples of water, foods, etc., sent to laboratory	70
15.	Number of reports for same	53
16.	Number of fire plugs opened or closed for sanitary purposes	0
17.	Number of hydrants recommended reopened	0
18.	Number of houses where garbage has not been removed for two days	3,834
19.	Number of persons reported sick to municipal physicians	6,744
20.	Cesspools and vaults ordered cleaned	1,792
21.	Cesspools cleaned	1,760
22.	Yards ordered cleaned	47,051
23.	Yards cleaned	41,536
24.	Yards ordered repaired (repaved, etc.)	6
25.	Yards repaired	1
26.	Number of cholera cases reported by sanitary inspectors	79
27.	Number of cholera cases found alive	163
28.	Number of cholera cases found dead	209
29.	Number of orders issued during the year	275
30.	Number of orders complied with during the year	224
31.	Number of orders awaiting action	318
32.	Number of orders pending in court	0
33.	Average number of food tiendas in the districts	1,271
34.	Number of persons convicted for violation of food prohibition orders	361
35.	Average number of regular inspectors on duty	9
36.	Average number of regular emergency inspectors on duty	9
37.	Number of leprosy cases sent to San Lazaro Hospital	39
38.	Number of plague cases reported	31

General inspection of houses, premises, vaults, etc.—Continued.

39. Number of smallpox cases reported	22
40. Average number of houses in which traps are set	190
41. Average number of houses in which bane is placed	0
42. Average number of traps set	245
43. Average number of plates with rat bane placed	0
44. Rats caught by rat catchers	30,213
45. Rats caught by traps	12,149
46. Rats caught by poison	8
47. Rats purchased	95,384
48. Average number of rat catchers employed	1
49. Rats sent to laboratory for examination for plague	21

Report of disinfections.

Causes of disinfections.	Number of disinfections.	Number of contacts.	Causes of disinfections.	Number of disinfections.	Number of contacts.
Cholera	1,568	3,701	Membranous laryngitis	1	
Suspected cholera	189	1,294	Typhoid fever	8	
Plague	24	108	Chicken pox	1	
Suspected plague	7	31	Lymphangitis	6	
Tuberculosis	209		Beriberi	6	
Leprosy	28	69	Foot and mouth disease	3	
Tetanus	5	3	Suspected smallpox	2	16
Glanders	44		Malignant edema	1	8
Surra	5		Mosquito sulphur fumigation	1	
Rinderpest	3				
Exhumations	279		Suspected chicken pox	1	2
Insanitary condition	5,369	834	Bronchitis	1	
Smallpox	24	1	Cerebro-spinal meningitis	1	
Undetermined	11	35			
Unknown	5	13	Total	7,802	6,115

Amount of vaccine virus distributed by the Bureau of Health.

	Units.
Number on hand July 1, 1905	18,000
Surplus found on hand	1,550
Received from laboratory	2,201,235
Total to be accounted for	2,220,785
Distributed as per itemized statement	2,180,692
Remaining on hand June 30, 1906	40,093

Places at which vaccine virus was distributed.

Place.	Units.	Place.	Units.
Manila:		Provinces—Continued.	
Health districts	9,715	Mindoro	6,000
Other institutions	9,952	Misamis	10,000
Returned to laboratory	450	Moro	2,300
		Negros Occidental	28,500
Total	20,117	Negros Oriental	4,500
		Nueva Ecija	19,900
Provinces:		Nueva Viscaya	875
Albay	59,000	Palawan	1,750
Ambos Camarines	12,100	Pampanga	48,000
Bataan	57,000	Pangasinan	83,050
Batangas	218,000	Paragua	500
Benguet	6,000	Rizal	100,000
Bulacan	101,250	Romblon	11,900
Cagayan	2,600	Samar	1,500
Capiz	23,700	Sorsogon	82,950
Cavite	38,200	Surigao	1,000
Cebu	570,000	Tarlac	19,000
Davao	200	Tayabas	10,700
Ilocos Norte	50,500	Union	122,000
Ilocos Sur	277,500	Zambales	200
Iloilo	23,500	Zamboanga	1,000
Isabela	4,500		
Laguna	177,200	Total	2,160,575
Lepanto-Bontoc	81,000		
Leyte	2,600	Grand total	2,180,692
Masbate	100		

Vaccinations and inspections of vaccinations performed in the Philippine Islands during the fiscal year ended June 30, 1906.

Province.	Period.		Number of vaccinations.	Number of inspections.	Successful vaccinations.	Unsuccessful vaccinations.	Average of vaccinations per 1,000 population.
	From—	To—					
SYSTEMATIC.							
Bataan	Sept. 1, 1905	Dec. 31, 1905	34,764	28,989	8,540	20,449	769.69
Batangas	Dec. 15, 1905	June 30, 1906	125,124	92,938	53,076	39,862	485.51
Cavite	July 1, 1905	Apr. 28, 1906	23,259	9,796	2,845	6,951	172.57
Cebu	do	June 30, 1906	219,558	192,411	97,765	94,646	335.85
Ilocos Norte	July 5, 1905	do	64,832	63,077	8,824	44,713	366.72
Ilocos Sur	Aug. 21, 1905	Mar. 31, 1906	213,636	165,456	56,830	108,626	1,000.95
Laguna	Oct. 1, 1905	June 30, 1906	126,062	79,536	57,346	22,190	848.29
Oriental Negros	Mar. 12, 1906	May 31, 1906	36,114	24,717	17,356	7,361	195.32
Rizal	July 12, 1905	Aug. 31, 1905	15,641	10,484	3,111	7,373	105.32
Union	Feb. 5, 1906	June 30, 1906	91,135	63,628	39,534	27,094	713.16
Total			950,125	731,032	345,227	172,644	454.69
NONSYSTEMATIC.							
Benguet	Nov. 1, 1905	Mar. 31, 1906	3,281	2,680	1,371	1,324	144.29
Lepanto-Bontoc	July 11, 1905	Apr. 23, 1906	6,633	1,954	1,609	326	91.17
Pampanga	Jan. 1, 1906	Mar. 31, 1906	45,749	31,407	18,936	13,011	205.42
Pangasinan	July 10, 1905	Mar. 28, 1906	47,938	33,670	20,356	14,716	121.51
Tarlac	July 1, 1904	Aug. 30, 1905	26,589	26,437	15,746	10,691	134.26
Total			130,190	96,148	58,018	40,068	153.85
Total systematic and nonsystematic			1,080,315	827,180	403,245	212,712	367.98
From reports on Form 50 received from other provinces until June 30, 1906			165,578	([a])	([a])	([a])	([a])
Total vaccinations			1,245,893				

[a] Inspections are not reported.

Reports received of lepers living in the various provinces of the Philippine Islands.

Province.	Race.	Number of males.	Number of females.	Children.		Single.		Married.		Widowers.	Widows.	Total.
				Male.	Female.	Male.	Female.	Male.	Female.			
Abra	Filipino	6	5	1	------	4	3	1	2	------	------	11
Albay	do	31	16	------	------	24	12	6	3	1	1	47
Ambos Camarines	do	53	15	6	------	23	7	20	7	4	1	68
Antique	do	67	50	18	14	20	18	23	14	6	4	117
Bataan	do	14	9	1	2	7	4	2	2	4	1	23
Batangas	do	18	11	------	------	15	5	2	2	1	4	29
Benguet[a]	do	32	11	1	1	1	------	21	10	9	------	43
Bohol	do	78	55	5	3	34	39	35	12	4	1	133
Bulucan	do	27	15	------	1	11	9	13	3	3	2	42
Cagayan	do	48	46	2	1	18	16	25	17	3	12	94
Capiz	do	36	14	1	------	14	5	19	5	2	4	50
Cavite	do	42	24	3	2	26	16	8	5	5	1	66
Cebu[b]	do	442	259	104	38	223	173	102	34	13	14	701
Ilocos Norte	do	78	40	2	1	22	18	51	17	3	4	118
Ilocos Sur	do	149	86	11	2	74	46	47	26	17	12	235
Iloilo	do	104	47	11	2	62	25	24	8	7	12	151
Isabela	do	9	3	------	------	3	------	6	2	------	1	12
Laguna	do	14	11	------	2	7	4	7	3	------	2	25
Lepanto-Bontoc[a]	do	15	4	1	------	5	1	8	------	1	3	19
Leyte[c]	do	34	24	2	2	13	9	17	8	2	5	58
Masbate	do	13	10	------	------	7	4	3	3	3	3	23
Misamis	do	44	12	5	------	20	5	16	4	3	3	56
Moro[a]	Moros	143	77	3	3	86	44	45	18	9	12	220
Negros Occidental	Filipino	26	8	2	2	11	6	11	------	2	------	34

[a] Revised reports not received.

[b] 365 lepers were segregated from this province May 27, 1906, and were the first party transferred to the new leper colony in the Island of Culion, P. I.

[c] Leyte, 58; 1 Chinese. Tarlac, 37; 1 Chinese.

Reports received of lepers living in the various provinces of the Philippine Islands—Cont'd.

Province.	Race.	Number of males.	Number of females.	Children.		Single.		Married.		Widowers.	Widows.	Total.
				Male.	Female.	Male.	Female.	Male.	Female.			
Negros Oriental	Filipino	59	40	------	------	31	21	23	12	5	7	99
Nueva Ecija	do	31	16	1	------	14	6	14	6	2	4	47
Nueva Vizeaya[a]	do	2	4	------	------	1	------	1	2	------	2	6
Pampanga	do	15	9	1	------	5	5	6	4	3	------	24
Pangasinan	do	39	30	------	2	15	8	15	14	9	6	69
Rizal	do	56	34	2	4	25	9	29	20	------	1	90
Romblon	do	4	9	------	------	1	2	3	7	------	------	13
Samar	do	143	115	------	1	43	50	74	43	26	21	258
Sorsogon	do	80	37	------	2	40	18	36	6	4	11	117
Surigao[a]	do	2	1	------	------	------	------	------	------	2	1	3
Tarlac[b]	do	23	14	------	1	4	6	16	7	3	------	37
Tayabas	do	19	4	1	------	9	2	7	2	2	------	23
Union	do	30	17	------	------	11	8	18	4	1	5	47
Zambales	do	23	27	------	------	12	14	11	9	------	4	50
San Lazaro Hospitals	(c)	145	91	19	12	79	40	36	23	11	16	236
Total		2,194	1,300	203	98	1,020	658	801	364	170	180	3,494

[a] Revised reports not received.

[b] Leyte, 58; 1 Chinese. Tarlac, 37; 1 Chinese.

[c] Filipinos, 235; Chinese, 1.

Reports received of insane persons living in the various provinces of the Philippine Islands.

Province.	Race.	Number of males.	Number of femles.	Children.		Single.		Married.		Widowers.	Widows.	Total.
				Male.	Female.	Male.	Female.	Male.	Female.			
Abra	Filipino	34	9	3	4	25	1	6	1	------	3	43
Albay	do	18	19	2	------	8	12	5	8	3	4	37
Ambos Camarines	do	66	55	1	4	46	36	15	9	4	6	121
Antique	do	35	33	------	------	24	14	9	14	2	5	68
Bataan	do	14	7	------	------	7	------	6	3	1	4	21
Batangas	do	49	44	1	------	40	28	5	7	3	9	93
Bohol	do	279	280	11	7	209	212	50	45	9	16	559
Bulacan	do	29	23	------	------	22	13	4	7	3	3	52
Cagayan	do	22	21	------	------	13	8	7	8	2	5	43
Capiz	do	70	69	------	1	47	30	18	21	5	17	139
Cavite	do	31	27	------	------	20	11	8	11	3	5	58
Cebu	do	172	114	5	6	145	85	20	15	2	8	286
Ilocos Norte	do	73	30	------	------	58	17	11	6	4	7	103
Ilocos Sur	do	109	55	2	1	75	34	25	10	7	10	164
Iloilo	do	100	100	1	1	78	54	15	21	6	24	200
Isabela	do	7	4	------	------	2	1	5	2	------	1	11
Laguna	do	26	23	1	------	15	12	8	7	2	4	49
Lepanto-Bontoc	do	10	7	------	------	6	5	3	------	1	2	17
Leyte	do	34	17	3	------	27	13	3	4	1	------	51
Masbate	do	15	21	1	1	9	14	4	5	1	1	36
Mindoro	do	9	7	------	------	8	4	1	2	------	1	16
Misamis	do	72	57	3	------	47	35	17	13	5	9	129
Negros Occidental	do	58	35	------	------	41	18	12	9	5	8	93
Negros Oriental	do	99	78	------	------	80	62	15	8	4	8	177
Nueva Ecija	do	22	21	------	1	19	12	2	6	1	2	43
Nueva Vizcaya	do	4	5	------	------	4	1	------	3	------	1	9
Pampanga	do	32	25	------	------	27	12	4	8	1	5	57
Pangasinan	do	74	68	2	------	45	26	19	26	8	16	142
Rizal	do	42	25	------	------	30	16	8	4	4	5	67
Romblon	do	26	3	------	------	7	2	13	1	6	------	29
Samar	do	32	28	------	------	24	19	4	4	4	5	60
Sorsogon	do	86	65	------	------	63	40	19	19	4	6	151
Surigao	do	9	10	------	------	5	6	2	2	2	2	19
Tarlac	do	10	8	------	------	5	5	5	2	------	1	18
Tayabas	do	146	126	8	3	110	88	24	20	4	15	272
Union	do	38	25	------	------	18	17	15	6	5	2	63
Zambales	do	4	6	------	------	3	3	1	1	------	2	10
San Lazaro Hospitals	(a)	76	15	3	------	55	6	13	6	5	3	91
Total		2,032	1,565	47	29	1,467	972	401	339	117	225	3,597

[a] American, 1; Europeans, 2; Filipinos, 82; Chinese, 2; others, 4.

Reports received of blind persons living in the various provinces of the Philippine Islands.

Province.	Race.	Number of males.	Number of females.	Children.		Single.		Married.		Widowers.	Widows.	Total.
				Male.	Female.	Male.	Female.	Male.	Female.			
Abra	Filipino	44	55	2		10	15	18	22	14	18	99
Albay	do	365	301	73	67	177	150	84	47	31	37	666
Ambos Camarines	do	136	116	8	16	64	46	42	19	22	35	252
Antique	do	72	59	9	4	28	23	20	10	15	22	131
Bataan	do	22	21	7	5	8	8	4	1	3	7	43
Batangas	do	92	88	15	7	32	38	32	10	13	33	180
Bohol	do	198	150	46	25	91	69	46	25	15	31	348
Bulacan	do	122	82	14	6	44	35	37	17	27	24	204
Cagayan	do	51	64	3	4	15	14	18	13	15	33	115
Capiz	do	148	148	12	9	54	49	46	27	36	68	296
Cavite	do	52	44	5	4	22	20	15	6	10	14	96
Cebu	do	344	295	40	22	152	133	106	59	46	81	639
Ilocos Norte	do	90	107	5	1	21	36	37	18	27	52	197
Ilocos Sur	do	114	132	13	15	38	37	40	29	23	51	246
Iloilo	do	229	235	28	14	92	89	69	31	40	101	464
Laguna	do	127	107	17	9	40	39	50	23	20	36	234
Leyte	do	326	195	64	22	168	95	57	29	37	49	521
Masbate	do	32	35	2	2	14	13	12	7	4	13	67
Misamis	do	71	48	6	4	43	21	14	12	8	11	119
Negros Occidental	do	59	40		2	31	16	21	5	7	17	99
Negros Oriental	do	142	103	14	15	57	34	36	15	35	39	245
Nueva Ecija	do	43	42	3	3	16	13	12	9	12	17	85
Pangasinan	do	166	183	12	15	63	47	64	43	27	78	249
Rizal	do	115	86	30	9	30	26	34	11	21	40	201
Romblon	do	36	29	5	6	17	17	10	4	4	2	65
Samar	do	133	69			67	29	32	20	34	20	202
Sorsogon	do	225	140	25	16	139	94	45	17	16	13	365
Surigao	do	37	26	6	2	14	6	12	12	5	6	63
Tarlac	do	47	36	1	1	17	10	22	8	7	17	83
Tayabas	do	101	84									185
Union	do	59	46	3	2	19	9	21	14	16	21	105
Total		3,798	3,166	468	307	1,583	1,231	1,056	563	590	981	6,964

Cases and deaths from Asiatic cholera occurring in the Philippine Islands, excluding the city of Manila, from August 23, 1905, to June 30, 1906.

Province or town.	Cases.	Deaths.	Total cases.	Total deaths.	Average.
Bataan:					
Abucay	66	49			
Bagac	1	1			
Balanga	88	72			
Mariveles	1	1			
Orani	35	38			
Orion	84	41	275	202	73.45
Batangas:					
Lipa	2	1			
Tanauan	10	6	12	7	58.33
Bulacan:					
Angat	127	117			
Baliuag	78	61			
Bocaue	14	10			
Bulacan	31	22			
Calumpit	67	43			
Hagonoy	197	139			
Meycauayan	1	1			
Malolos	59	40			
Paombong	59	45			
Polo	8	4			
Quingua	93	80			
San Miguel	2	1			
Santa Maria	39	31	765	594	77.64
Cavite:					
Bacoor	21	21			
Carmona	1	1			
Cavite	42	40			
Indang	25	21			
Imus	195	148			
Maragondon	70	60			

Cases and deaths from Asiatic cholera occurring in the Philippine Islands, excluding the city of Manila, from August 23, 1905, to June 30, 1906—Continued.

Province or town.	Cases.	Deaths.	Total cases.	Total deaths.	Average.
Cavite—Continued.					
Naic	243	174			
Noveleta	135	80			
Rosario	1	1			
San Francisco	83	58			
Sangley Point	1	1			
San Roque	5	5			
Santa Cruz	12	11	834	621	74.46
Laguna:					
Bay	2	2			
Biñang	112	98			
Cabuyao	4	4			
Calamba	67	46			
Lilio	22	18			
Los Baños	19	14			
Mabitac	2	2			
Magdalena	7	6			
Majayjay	17	12			
Nagcarlang	2	1			
Nanpaya	2	2			
Paete	39	24			
Pagsanjan	13	12			
Pangil	4	8			
Pila	9	8			
San Pablo	1	1			
Santa Cruz	56	43			
Santa Rosa	23	18			
Siniloan	142	103	543	407	74.95
Nueva Ecija:					
Bongabon	1	1			
Cabanatuan	42	19			
Gapan	36	29			
Peñaranda	8	6			
San Antonio	7	6			
San Isidro	8	7	102	68	66.66
Pampanga:					
Angeles	1	1			
Apalit	59	29			
Arayat	108	82			
Bacolor	4	4			
Camp Stotsenberg	2	2			
Candaba	54	46			
Floridablanca	1	1			
Guagua	87	76			
Lubao	56	48			
Macabebe	106	85			
Mexico	2	2			
Porac	1	1			
San Fernando	6	5			
San Luis	120	90			
Santa Rita	8	7	615	479	77.88
Rizal:					
Antipolo	57	35			
Binangonan	60	29			
Caloocan	4	2			
Fort McKinley	1				
Malabon	80	78			
Mariquina	9	8			
Morong	186	116			
Parañaque	26	18			
Pasay	8	6			
Pasig	120	84			
Pililla (Jalajala)	28	18			
San Felipe Neri	6	4			
San Mateo	16	12			
San Pedro Macati	7	7			
Taguig	69	52			
Tanay	145	79			
Taytay	142	122	964	665	68.98
Tarlac:					
Capas	1	1			
Guevara	9	11			
La Paz	10	7			
Tarlac	8	4	28	23	82.14
Tayabas:					
Lucban	4	4			
Lucena	1	1	5	5	100
Grand total and average			4,144	3,073	74.15

Cases and deaths from Asiatic cholera occurring in the city of Manila from August 23, 1905, to June 30, 1906.

Race.	Cases.		Deaths.	
	Male.	Female.	Male.	Female.
Americans	9	3	6	1
Filipinos	206	135	183	127
Foreigners	20	1	17	
Chinese	11		11	
Total	246	139	217	128

District and age.	Cases.	Deaths.
Health districts:		
No. 1, San Nicolas	59	55
No. 2, Tondo	82	77
No. 3, Quiapo	26	20
No. 4, Santa Cruz	99	86
No. 5, Sampaloc	36	33
No. 6, Intramuros	28	19
No. 7, Paco, Ermita, etc	55	55
Total	385	345
Ages:		
Under 1 year	1	1
1 year to 10 years	68	67
10 years to 20 years	77	62
20 years to 30 years	103	92
30 years to 40 years	82	73
40 years to 50 years	23	20
Over 50 years	29	28
Unknown	2	2
Total	385	345

Number of cases found alive	182
Number of cases found dead	203
Total	385

Smallpox and plague reports, city of Manila.

Nationality.	Smallpox.				Plague.			
	Cases.		Deaths.		Cases.		Deaths.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
Americans		3						
Filipinos	24	4	2	3	6	5	7	5
Chinese					8		8	
Total	24	7	2	3	14	5	15	5

District and age.	Smallpox.		Plague.	
	Cases.	Deaths.	Cases.	Deaths.
Health districts:				
No. 1, San Nicolas	7	3	9	9
No. 2, Tondo	6		5	5
No. 3, Quiapo	3		1	1
No. 4, Santa Cruz	2		2	3
No. 5, Sampaloc	2			
No. 6, Intramuros	8	1	2	2
No. 7, Paco, etc	3	1		
Total	31	5	19	20

Smallpox and plague reports, city of Manila—Continued.

District and age.	Smallpox.		Plague.	
	Cases.	Deaths.	Cases.	Deaths.
Ages:				
Under 1 year	2	2		
1 year to years	4	1	1	1
10 years to 20 years	13	1	8	8
20 years to 30 years	8	1	3	4
30 years to 40 years	4		6	6
Over 50 years			1	1
Total	31	5	19	20

Number of cases found alive:	
Smallpox	28
Plague	7
Number of cases found dead:	
Smallpox	3
Plague	12

Epidemic of cholera in the city of Manila and provinces from August 23, 1905, to June 30, 1906.

Period.	Manila.			Provinces.		
	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.
August, 1905	51	46	90.19	81	65	80.24
September, 1905	147	126	85.71	334	252	75.44
October, 1905	31	29	93.54	358	249	69.55
November, 1905	18	17	94.44	480	335	69.79
December, 1905	8	8	100	387	290	75.06
First quarter, 1906	28	27	96.42	2,138	1,644	76.89
Second quarter, 1906	102	92	90.19	365	236	64.65
Total	385	345	89.61	4,143	3,071	74.12

STATISTICS FOR SAN LAZARO HOSPITAL DIVISION.

Report of sick.

Number of patients brought forward July 1, 1905	316
Number of patients admitted during the year	366
Number of patients discharged during the year	142
Number of patients died during the year	185
Number of patients transferred during the year	16
Number of patients escaped (lepers)	6
Number of patients remaining June 30, 1906	333

Average number of patients treated per day.

1905.		1906.	
July	307	January	306
August	301	February	305
September	304	March	308
October	302	April	315
November	305	May	327
December	307	June	336

Average for the year, 310.

Cost of subsistence per patient per day.

1905.		1906.	
July	₱0.35	January	₱0.40
August	.38	February	.38
September	.36	March	.40
October	.38	April	.39
November	.37	May	.365
December	.40	June	.334

Average cost for the year, ₱0.375.

Report of insane.

Race.	Total admitted.		Discharged.		Transferred.		Died.		Remaining.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
American	6		4				1		1	
European	2		3						2	
Chinese	1								2	
Filipino	52	15	28	10		1	10	2	67	15
Others	4		1						4	
Total	65	15	36	10		1	11	2	76	15

Note.—Of the 13 deaths, the causes are recorded as tuberculosis, 1; general inanition, 1; heart disease, 2; dysentery, 2; apoplexy, 1; senility, 1; general debility, 1; beri-beri, 1; nephritis, 2; cerebral meningitis, 1.

Diagnosis of cases treated.

Melancholia	70	Mania	5
Delusional insanity	19	Not insane	1
Dementia	14	Senility	1
Epilepsy	6	Hysteria	1
Catalepsy	1	Undetermined	26
Imbecility	4		
Paranoia	3	Total	151

Report of leper department.

Remaining in hospital July 1, 1905	240	Discharged to go to China	1
Admitted during the year	77	Escaped	6
Died during the year	59	Transferred to Culion leper colony	8
Discharged, diagnosis not leprosy	7	Remaining June 30, 1906	236

Report of plague department.

Month.	Remaining last report.	Admitted.	Transferred or discharged not plague.	Discharged cured.	Died.	Remaining.
1905.						
July	1	3	1		3	
August		4	2		2	
September		2	1		1	
October		1	1			
1906.						
February		1	1			
April		1				1
May	1	1				2
June	2	2	2	1	1	

Report of smallpox department.

Month.	Remaining last report.	Admitted.	Transferred or discharged not smallpox.	Discharged cured.	Died.	Remaining.
1905.						
July	3	2	1	3		1
August	1					1
September	1	1		1		1
October	1	3		3		1
November	1	2		2		1
December	1					1

Report of smallpox department—Continued.

Month.	Remaining last report.	Admitted.	Transferred or discharged not smallpox.	Discharged cured.	Died.	Remaining.
1906.						
January	1	----------	----------	1	----------	----------
February	----------	4	----------	1	1	2
March	2	6	----------	4	1	3
April	3	5	----------	5	----------	3
May	3	8	----------	5	----------	6
June	6	1	----------	6	----------	1

Report of cholera department.

Month.	Admitted.	Discharged.	Discharged not cured.	Dead.	Transferred.	Transferred not cured.	Remaining.
1905.							
August	28	----------	3	18	----------	----------	7
September	59	28	4	38	----------	1	----------
October	14	2	3	8	----------	----------	1
November	11	2	3	6	----------	----------	1
December	3	----------	1	3	----------	----------	----------
1906.							
January	5	----------	1	4	----------	----------	----------
February	5	1	----------	4	----------	----------	----------
March	1	----------	----------	1	----------	----------	----------
April	2	----------	2	----------	----------	----------	----------
May	5	----------	----------	5	----------	----------	----------
June	25	4	----------	14	1	1	5
Total	158	32	17	101	1	2	5

Miscellaneous.

Disease.	Admitted.	Discharged.	Died.	Remaining.
Tetanus	3	1	3	----------
Diphtheria	1	1	----------	----------

Morgue and crematory report.

Month.	Bubonic plague.	Smallpox.	Leprosy.	Violence.	Cholera.	Other causes.	Total.
1905.							
July	3	----------	5	3	----------	16	27
August	4	----------	9	3	22	33	71
September	2	----------	5	7	123	33	170
October	1	----------	6	5	37	18	67
November	----------	----------	1	5	14	18	38
December	1	----------	4	1	5	23	34
1906.							
January	4	----------	13	1	21	42	81
February	2	1	4	----------	12	22	41
March	2	4	3	----------	2	26	37
April	2	----------	1	3	----------	20	26
May	----------	----------	----------	1	11	25	37
June	----------	----------	4	----------	56	9	69
Total	21	5	55	29	303	285	698

Autopsies held during the year	336
Bodies cremated	55
Buried as paupers	480

STATISTICAL TABLES, CIVIL HOSPITAL DIVISION.

Medical cases.

Cause.	Male.	Female.	Deaths.
Anemia	10	1	---
Ascariasis	4	2	---
Asthma	5	---	---
Arthritis, simple	4	---	---
Amœbiasis intestinalis	143	45	2
Amœbiasis and perforation of ulcer	1	---	1
Anorexia	2	---	---
Autointoxication	2	---	---
Alcoholism	22	---	---
Atrophy of optic nerve	2	---	---
Beriberi	4	---	2
Bronchitis:			
Acute	20	2	---
Chronic	3	---	---
Purulent	---	1	---
Broncho-pneumonia	---	1	1
Cardiac dilatation	1	1	---
Cardiac insufficiency:			
Aortic	1	---	---
Mitral	1	---	---
Cardiac neuralgia	1	---	---
Cardiac valvular disease	4	---	---
Cardiac palpitation	8	1	---
Cranialgia	1	---	---
Cirrhosis of liver	1	---	---
Cholera	3	1	---
Cholera suspect	1	1	---
Colitis	11	2	---
Colic:			
Appendicular	1	---	---
Renal	9	1	---
Colitis, chronic	---	1	---
Coma, uræmic	1	---	1
Constipation	13	3	---
Convalescence from malaria	1	---	---
Coryza, acute	2	---	---
Dermatitis:			
Simple	2	---	---
Purulent	1	1	---
Toxic	1	---	---
Debility, general	4	---	---
Delirium tremens	1	---	---
Dengue fever	31	9	---
Diarrhea:			
Acute	12	2	---
Infantile	2	2	---
Distomiasis	1	---	---
Dhobie itch	3	---	---
Dipsomania	6	---	---
Dysentery:			
Catarrhal	8	3	---
Chronic	1	---	---
Enteric fever	15	---	2
Enteric fever with perforation of intestines	---	1	1
Enteritis, acute	5	3	---
Entero-colitis	15	5	---
Eczema	1	---	---
Epilepsy	1	---	---
Episcleritis	1	---	---
Febricula	17	---	---
For diagnosis	10	1	---
Gastralgia	2	---	---
Gastritis	21	2	---
Glaucoma	---	1	---
Gout	1	---	---
Gumma of iris	1	---	---
Hemorrhages:			
Intramuscular	1	---	---
Intestinal, of stomach and bowels due to alcoholism	1	---	1
Hæmoptysis	1	---	---
Hepatitis	1	---	---
Herpes zoster	1	1	---
Hysteria	---	1	---

Cause.	Male.	Female.	Deaths.
Inflammation of tendo-achilles, chronic	1	---	---
Insanity	3	---	---
Insanity, delusional	1	---	---
Intestinal fermentation	1	1	---
Ilio-colitis	3	---	---
Indigestion, acute	27	1	---
Iritis	2	---	---
Jaundice, catarrhal	2	---	---
Keratitis, phlyctenular	1	---	---
Laryngitis:			
Chronic	1	---	---
Syphilitic	1	---	---
Lumbago	3	---	---
Malaria:			
Æstivo-autumnal	185	18	---
Cachexia	1	---	---
Pernicious	11	---	5
Tertian	68	---	---
Malingerer	2	---	---
Melancholia	1	---	---
Migraine	1	---	---
Myalgia	1	---	---
Nephritis:			
Interstitial	4	---	---
Parenchymatous, acute	4	1	---
Nervous exhaustion	1	---	---
Neuralgia:			
Intercostal	---	1	---
Of posterial cervical nerves	2	---	---
Supraorbital	2	---	---
Neurasthenia	15	9	---
Neuritis, optic descending	2	---	---
Nystagmus, lateral	1	---	---
Obstipation	1	---	---
Orchitis	16	---	---
Parasites, intestinal	6	---	---
Paralysis:			
Facial, partial	1	---	---
Of left arm, partial	1	---	---
Paresis, incipient, probably traumatic	1	---	---
Paronychia of toe	1	1	---
Plague suspect	5	---	---
Pharyngitis, syphilitic	1	---	---
Pemphigus contagiosa	1	---	---
Perihepatitis	---	1	---
Peritonitis, tubercular	4	1	3
Pleurisy, acute	2	1	---
Pneumonia, lobar	4	---	2
Ptomaine poisoning	15	2	---
Poisoning, carbolic	1	---	---
Ptyalism	1	---	---
Pyonephrosis	1	---	---
Retina, detached	1	---	---
Retinitis	1	---	---
Rheumatism:			
Articular	5	---	---
Muscular	4	1	---
Gonorrhœal	5	---	---
Smallpox suspect	1	---	---
Septicemia	1	---	1
Sciatica	1	---	---
Syphilis:			
Secondary	6	---	---
Tertiary	4	---	---
Trachoma	1	---	---
Tetanus	3	---	---
Triocepgaliasis	1	---	---
Tuberculosis:			
Intestinal	1	---	---
Miliary general	3	---	2
Of intestines	1	1	1
Pulmonary	23	1	1
Of testes	1	---	---

Medical cases—Continued.

Cause.	Male.	Female.	Deaths.
Ulcer, gastric	2	----	---
Uncinariasis	6	----	---
Urticaria	1	----	---
Varicella	1	----	---
Varioloid	----	1	---
Surgical cases.			
Abrasion of foot	8	----	---
Abcess:			
Alveolar	1	1	---
Hepatic, amœbic	5	----	5
Hepato-pulmonary	1	----	---
Submaxillary	1	----	---
Maxillary	2	----	---
Of buttock	----	1	---
Of face	2	----	---
Of knee, tubercular	1	----	---
Of neck	2	----	---
Of scalp	1	----	---
External auditory canal	2	----	---
In left inguinal fossa	2	----	---
Ischio rectal	3	3	---
Pharyngeal	1	----	---
Pelvic	----	1	---
Adenitis:			
Cervical tubercular	3	----	---
Femoral	3	----	---
Inguinal	15	----	---
Amputation:			
Arm, right	1	----	---
Breast, right	----	1	---
Finger	4	----	---
Toe	1	----	---
Aneurism of superficial femoral artery	----	1	---
Ankylosis of hip joint	----	1	---
Appendicitis:			
Catarrhal	8	3	---
Fulminating perforating	1	1	---
Gangrenosum	1	----	---
Suppurative	6	1	---
Arthritis, gonorrhœal	1	----	---
Bubo, tropical, nonvenereal	1	----	---
Burns:			
Electric	1	----	---
From nitric acid	1	----	---
Of shoulder and arm	1	----	---
Lower extremities	3	----	---
Carbuncle	2	----	---
Cataract	----	2	---
Cataract extraction preceded by removal of double pterygium	1	----	---
Chancre	2	----	---
Chancroid	4	----	---
Cellulitis:			
Of hand and finger	3	----	---
Of foot	4	----	---
Of foot following punctured wound	1	----	---
Of thigh from nail punctured wound	1	----	---
Cephalalgia	1	----	---
Circumcision	2	----	---
Choledochotomy for cholelithiasis	1	----	1
Conjunctivitis, purulent	14	----	---
Concussion of brain	----	1	---
Contusion:			
Of body	2	2	---
Of chest	2	----	---
Of chest and leg	1	----	---
Of face	2	----	---
Of face and arm	----	1	---
Of feet	5	----	---
Of side	2	----	---
Convalescence from injury	1	----	---
Cystitis	8	2	---
Dupuytren's contraction, both hands	1	----	---
Epididymitis	11	----	---
Epistaxis	1	----	---
Excision of tibial nerve for diagnostic purposes	1	----	---
Erosions of mouth and æsophagus (from accidental swallowing of bichloride solution)	1	----	---
Fracture:			
Colle's	1	----	---
Of clavicle	2	----	---
Of cervical spine	1	----	1
Of finger	1	----	---
Of outer table of skull	1	----	---
Of upper maxilla	1	----	---
Of thigh, ribs, and skull	1	----	1
Of thigh, compound	1	----	---
Of ulna and radius, upper third	1	----	---
Compound, elbow	1	----	---
Compound, of fifth metatarsal bone	1	----	---
Compound, leg	1	----	---
Compound comminuted of patella	1	----	---
Fissure, anal	1	1	---
Fistula:			
In ano	4	----	---
Recto-urethral	1	----	---
Vesical	1	----	---
Furuncle of nose	4	----	---
Furunculosis	2	----	---
Gonorrhea	40	1	---
Hernia:			
Inguinal	16	----	---
Inguinal, strangulated	1	----	---
Umbilical	1	----	---
Hemorrhage from ruptured spleen	1	----	1
Hemorrhoids	8	----	---
Hydrocele	12	----	---
Inflammation, frontal sinus	1	----	---
Infection of ear	1	----	---
Infected:			
Foot	16	1	---
Hand	5	1	---
Nose	1	----	---
Toe	2	----	---
Thrombus and abscess of skull	1	----	1
Injury, internal, result of fall	1	----	---
Laceration:			
Fingers	2	----	---
Hand	1	----	---
Perineal	----	1	---
Toe	8	----	---
Urethra	1	----	---
Lipoma on the back	1	----	---
Mastoiditis	1	----	---
Needle in arm	----	1	---
Necrosis of nail	----	1	---
Nephrolithiasis	1	----	---
Ophthalmia	1	----	---
Ophthalmia, gonorrheal	2	----	---
Osteo-myelitis, chronic	1	----	---
Otitis media	9	3	---
Otitis media, chronic	1	----	---
Papilloma of rectum	1	----	---
Phlebitis of legs	1	----	---
Periostitis	8	----	---
Pterygium	4	----	---
Phimosis	1	----	---
Prolapse of rectum	3	----	---
Pyonephrosis	1	----	---
Removal of small papillary growth	1	----	---

Medical cases—Continued.

Cause.	Male.	Female.	Deaths.
Right nares, obstruction of	1		
Sprain:			
Ankle	6		
Back	1		
Knee	4		
Shoulder	1	1	
Stricture, urethral	1		
Shock, slight	1		
Suppurating meibomian gland	1		
Traumatism of fingers	1		
Teno-synovitis	1		
Tonsillitis:			
Follicular	2		
Phlegmonous	1		
Tumor:			
Of back, pedunculated	1		
Of eyelid		1	
Of leg	1		
Of neck	2		
Of rectum	1		
Ulcer:			
On ankle		1	
Corneal	3		
Of leg	5		
Ulceration of foot	2		
Varicocele	4		
Volvulus intestinal	1		
Wound:			
Bolo, on back	2		
Of hand	1		
Contused—			
Of back	1		
Of leg	3		
Gunshot—			
Abdomen	1		1
Arm	1		
Shoulder	1		
Thigh	4		
Incised—			
Breast	1		
Wound—Continued.			
Incised—Continued.			
Head	1		
Neck	1		
Lacerated	1		
Of arm and hand	1		
Of hand	2		
Of face	2		
Of foot	2		
Of scalp	2		
Of side	1		
Perforated, of eye	5		
Punctured, of foot	2		
Suppurating, of neck	1		
Obstetrical and gynecological cases.			
Abortion		3	
Abortion, threatened		4	
Abnormal condition, double vagina and uterus		1	
Albuminuria of pregnancy		1	
Cervicitis		3	
Convalescence from childbirth		1	
Dysmenorrhea		3	
Eclampsia		1	
Ectopic gestation		1	
Endometritis		5	
Irritation of nipple		1	
Leucorrhea		1	
Metritis		1	
Menorrhagia		2	
Nervousness of pregnancy		1	
Ovaritis		1	
Pregancy		10	
Pregnancy and delivery		50	
Pregnancy:			
Double vagina and uterus		1	
Early and tubal disease		1	
Vomiting of pregnancy		3	

STATISTICAL TABLES, BENGUET SANITARIUM DIVISION.

Cases treated in sanitarium.

Cause.	Americans.		Filipinos.		Japanese, male.	Chinese, male.	Total.	Cured.	Improved.	Dead.
	Male.	Female.	Male.	Female.						
Abscess:										
Ischio-rectal					1		1	1		
Palmar			1				1	1		
Asthma			4				4		4	
Bronchitis:										
Acute	1		2		1		4	4		
Chronic			1				1		1	
Burns, carbolic acid	1						1	1		
Calculus, vesicle	1						1			1
Constipation	1		1				2	1	1	
Cystitis, acute	1				1		2	2		
Dengue	1						1	1		
Diarrhea			3				3	3		
Dysentery:										
Amœbic, chronic	6				1		7	5	2	
Acute	1		2				3	3		
Catarrhal—										
Acute					1		1	1		
Chronic	4		1			1	6	3	1	2
Ecthyma		1	3				4	4		
Enteritis			1				1	1		

Cases treated in sanitarium—Continued.

Cause.	Americans.		Filipinos.		Japanese, male.	Chinese, male.	Total.	Cured.	Improved.	Dead.
	Male.	Female.	Male.	Female.						
Fractures:										
Compound, radius and ulna, with hemorrhage						1	1			1
Radius—										
First and third rib				1			1	1		
Lower third			1				1	1		
Skull				1			1	1		
Ulna			1				1	1		
Gastritis:										
Acute	1						1	1		
Chronic	3				1		4		4	
Gonorrhea, acute			1				1		1	
Impetigo			2				2	2		
Indigestion					1		1	1		
Insanity, delusional			1				1		1	
Intestinal parasites:										
Ascariasis			2		1		3	3		
Opisthorchis sinensis					4		4		4	
Taenia solium			3				3	3		
Uncinariasis	1		4		3		8	6	2	
Laryngitis			2				2	2		
Lumbago			1				1	1		
Malaise		1					1	1		
Malaria			16		10	1	27	22	2	3
Myalgia					1		1	1		
Mushroom poisoning			1				1	1		
Neuralgia		1					1	1		
Osteo-sarcoma			1				1	1		
Panophthalmitis				1			1			1
Parturition		1		1			2	2		
Pleurisy			1				1	1		
Pneumonia:										
Bronchial			1				1	1		
Lobar			4				4	4		
Ptomaine poisoning	1						1	1		
Rheumatism, muscular					1		1	1		
Typhoid fever	1		1		2		4	4		
Ulcers, varicose	3						3	2	1	
Undetermined			5				5	5		
Urethritis					1		1	1		
Wounds:										
Contused			3				3	3		
Incised			5		1		6	6		
Lacerated			5			1	6	6		
Infected			1				1	1		
Total	27	4	81	4	31	4	151	119	24	8

OUTDOOR DEPARTMENT.

Cause.	Americans.		Filipinos.		Japanese, male.	Chinese, male.	Total.
	Male.	Female.	Male.	Female.			
Abscesses:							
Alveolar	2	1	1				[a]4
Finger	1		1				[a]2
Ischio-rectal	1				1		[a]2
Palmar			1				[a]1
Scrotum	1						[a]1
Adenitis, inguinal			1			2	3
Alopecia		1					1
Anemia		1					1
Arthritis	1						1
Ascariasis	3		3				6
Bronchitis, acute	19	9	37	2		1	86
Burns			3			1	4
Cataract					2		2

[a] Incised.

OUTDOOR DEPARTMENT—Continued.

Cause.	Americans.		Filipinos.		Japanese, male.	Chinese, male.	Total.
	Male.	Female.	Male.	Female.			
Clavus		1					1
Colic, intestinal			1				1
Conjunctivitis, acute	4	1	5	1	1		12
Constipation	14	10	8	2	7	2	43
Coryza	1	1					2
Cystitus, acute		1			1		2
Dermatitis, venenata	8	1	1				5
Dental caries	8	6	8		1		[b]18
Diarrhea	25	17	17		8	2	69
Dysentery:							
Acute	5		8		1		9
Amoebic	2	1					8
Catarrhal, chronic			1	1			2
Dysmenorrhea		8					8
Eczema	8		4		1	1	9
Furunculosis	3		8			1	[a]7
Fracture, rib						1	[c]1
Gastritis:							
Acute	7	4	2	1			14
Chronic	2						2
Gingivitis			4				4
Goiter				1			1
Gonorrhea	7				1		8
Headache	13	12	6		2		33
Hemorrhage post-partum				1			1
Hemorrhoids	1						1
Herpes labialis			1				1
Hordeolum	1						[a]1
Impetigo			1				1
Indigestion	3				1		4
Keratitis					1		1
Laryngitis, acute	3	1	2				6
Leucorrhea		1					1
Lumbago	1		3			1	5
Lymphangitis	1						1
Malaise	8	3	4		3		18
Malaria	25	2	43		6	2	78
Metrorrhagia		1					1
Morphinism	1						1
Mayalgia			1				1
Myositis	3		5			1	9
Neuralgia	1	3	1				5
Neurasthenia		1					1
Orchitis			2				2
Otitis media	2						2
Parotitis			2				2
Pharyngitis	1	1	2		1		5
Pleurisy			1				1
Pompholyx			1				1
Ptomaine poisoning	1						1
Rheumatism, muscular		1		1			2
Scabies			8	2		1	11
Stomatitis	8	1	4			2	10
Syphilis, secondary	2		1				3
Tinea imbricata			11	1			12
Tonsilitis	3				2		5
Trichophytosis	3		2				5
Tuberculosis, pulmonary			1				1
Ulcers:							
Corneal			1				1
Tropical	1		1				2
Urethritis			1				1
Vertigo	1						1
Wounds:							
Incised			2		1		[d]3
Infected	4	1	8	1			14
Lacerated	3	1	22				[d]26
Total	192	92	241	14	41	18	598

[a] Incised. [b] Tooth extracted. [c] Dressed. [d] Sutured.

Miscellaneous.

Revisits	453
Prescriptions filled	1,284
Surgical dressings	352
Examinations of Constabulary recruits	49
Vaccinations	48

Examinations made in sanitarium laboratory.

Specimen examined.	Americans.		Filipinos.		Japanese, male.	Chinese, male.	Total.
	Male.	Female.	Male.	Female.			
Feces	76	2	123	2	70	2	276
Blood:							
Hemoglobin	20	6	18		8		52
Malaria	31	1	49		34	3	118
Sputum	3		8				11
Urine (complete)	6	2	5		2	1	16
Pus	2		1	1			4
Total	138	11	204	3	114	7	477

Baguio weather statistics.

Month.	Total monthly rainfall.	Number of rainy days.	Maximum rainfall in 24 hours.	Maximum temperature registered.	Minimum temperature registered.	Mean maximum monthly temperature.	Mean minimum monthly temperature.
1905.	*Inches.*		*Inches.*	°*F.*	°*F.*	°*F.*	°*F.*
July	40.17	26	16.51	76.8	54.7	70.96	58.85
August	40.52	20	28	74.7	52.9	71.12	57.88
September	29.13	20	8.15	76.1	55.4	70.65	58.89
October	9.27	17	1.80	76.7	54.5	71.79	59.01
November	.37	3	.19	74.7	40.4	71.8	51.29
December	.67	2	4.2	77.4	49.1	74.14	58.78
1906.							
January	.56	4	.17	77	48.6	72.78	52.97
February	.03	1	.03	80.6	48.2	73.95	50.92
March	.94	6	.24	81	50.5	74.11	55.65
April	6.95	10	2.32	77.9	54.5	74.78	55.21
May	53.31	20	16.30	58.9	54.5	71.88	58.78
June	12.41	20	1.80	76.8	56.7	73.52	58.78
Total	194.33	149					

STATISTICAL TABLES, CEBU LEPER HOSPITAL.

Report of Cebu leper hospital from September 1, 1905, to May 25, 1906.

[Remaining August 31, 1905: Males, 229; females, 145.]

Month.	Number admitted.		Number recaptured.		Number died.		Number escaped.		Number remaining.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
September	5	4	2	1	7	3	1	2	228	145
October	5	2	2	4	4	2		2	231	147
November	3				2	5	3		229	142
December	5	2	3	1	11	4	11		215	141
January	3	1	2		4				216	142
February	2	1			3	3	1		214	140
March	9	6	1	1	3		3		218	147
April	6	4	1		2	2	2	3	221	146
May	6	2	1		5	2	5	1	218	145
Total	44	22	12	7	41	21	26	8	1,990	1,295

Mortality rate per thousand per annum, 231.

Report of Cebu leper hospital from September 1, 1905, to May 25, 1906—Continued.

MONTH OF SEPTEMBER, 1905.

[Remaining August 31, 1905: Males, 229; females, 145.]

Day.	Number admitted.		Number recaptured.		Number died.		Number escaped.		Number remaining.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1									229	145
2									229	145
3									229	145
4									229	145
5									229	145
6			1					1	230	144
7									230	144
8	1								231	144
9		1							231	145
10									231	145
11									231	145
12									231	145
13									231	145
14	1								232	145
15									232	145
16									232	145
17						1			232	144
18					2				230	144
19					1		1		228	144
20									228	144
21			1		1				228	144
22		1				1		1	228	143
23	1	1			1				228	144
24									228	144
25	1	1							229	145
26									229	145
27				1					229	146
28	1					1			230	145
29					1				229	145
30					1				228	145
Total	5	4	2	1	7	3	1	2		

MONTH OF OCTOBER, 1906.

[Remaining September 30, 1905: Males, 238; females, 145.]

Day.	Number admitted.		Number recaptured.		Number died.		Number escaped.		Number remaining.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1									228	145
2									228	145
3		1			1				227	146
4					1				226	146
5									226	146
6	2		1	1				1	229	146
7									229	146
8									229	146
9				3					229	149
10					1				228	149
11									228	148
12								1	228	148
13									228	148
14		1							228	149
15	1								229	149
16									229	149
17									229	149
18									229	149
19									229	149
20					1				228	149
21	1		1						230	149
22						1			230	148
23									230	148
24									230	148
25									230	148
26									230	148
27						1			230	147
28	1								231	147
29									231	147
30									231	147
31									231	147
Total	5	2	2	4	4	2		2		

Report of Cebu leper hospital from September 1, 1905, to May 25, 1906—Continued.

MONTH OF NOVEMBER, 1905.

[Remaining October 31, 1905: Males, 231; females, 147.]

Day.	Number admitted.		Number recaptured.		Number died.		Number escaped.		Number remaining.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1						1			231	146
2	1						2		230	146
3									230	146
4									230	146
5									230	146
6									230	146
7									230	146
8						1			230	145
9									230	145
10									230	145
11									230	145
12									230	145
13									230	145
14					1				229	145
15									229	145
16									229	145
17	1								230	145
18									230	145
19									230	145
20									230	145
21									230	145
22							1		229	184
23						1			229	144
24									229	144
25									229	144
26						1			229	143
27									229	143
28									229	143
29	1					1			230	142
30					1				229	142
Total	3				2	5	3			

MONTH OF DECEMBER, 1905.

[Remaining November 30, 1905: Males, 229; females, 142.]

Day.	Number admitted.		Number recaptured.		Number died.		Number escaped.		Number remaining.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1									229	142
2						1			229	141
3	1	1		1	1				229	143
4									229	143
5					2				227	143
6					1				226	143
7									226	143
8									226	143
9									226	143
10									226	143
11									226	143
12									226	143
13							1		225	143
14	1								226	143
15							4		222	143
16									222	143
17							1		221	143
18			3						224	143
19					1	1			223	142
20					2				221	142
21	2								223	142
22					1		1		221	142
23						1			221	141
24					1				220	141
25	1								220	141
26							1		220	141
27									220	141
28					1				219	141
29									219	141
30									219	141
31		1			1	1	3		215	141
Total	5	2	3	1	11	4	11			

Report of Cebu leper hospital from September 1, 1905, to May 25, 1906—Continued.

MONTH OF JANUARY, 1906.

[Remaining December 31, 1905: Males, 215; females, 141.]

Day.	Number admitted.		Number recaptured.		Number died.		Number escaped.		Number remaining.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1									215	141
2									215	141
3									215	141
4					1				214	141
5									214	141
6									214	141
7			1						215	141
8	1								216	141
9									216	141
10			1						217	141
11									217	141
12									217	141
13									217	141
14					1				216	141
15									216	141
16					1				215	141
17									215	141
18									215	141
19									215	141
20									215	141
21									215	141
22									215	141
23	1	1							216	142
24									216	142
25									216	142
26									216	142
27									216	142
28									216	142
29	1								217	142
30									217	142
31					1				216	142
Total	3	1	2		4					

MONTH OF FEBRUARY, 1906.

Remaining January 31, 1906: Males, 216; females, 142.]

1									216	142
2									216	142
3									216	142
4						1			216	141
5						1			216	140
6		1							216	141
7					1				215	141
8									215	141
9									215	141
10									215	141
11									215	141
12	1								216	141
13									216	141
14									216	141
15									216	141
16									216	141
17									216	141
18					1				215	141
19						1			215	140
20	1				1				215	140
21									215	140
22									215	140
23									215	140
24									215	140
25							1		214	140
26									214	140
27									214	140
28									214	140
Total	2	1			3	3	1			

Report of Cebu leper hospital from September 1, 1905, to May 25, 1906—Continued.

MONTH OF MARCH, 1906.

[Remaining February 28, 1906: Males, 214; females, 140.]

Day.	Number admitted.		Number recaptured.		Number died.		Number escaped.		Number remaining.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1									214	140
2			1						215	140
3	1								216	140
4									216	140
5									216	140
6									216	140
7									216	140
8	1								217	140
9									217	140
10									217	140
11		1							217	141
12									217	141
13									217	141
14									217	141
15									217	141
16									217	141
17		2			1				216	143
18									216	143
19									216	143
20									216	143
21		1			1				215	144
22	3								218	144
23									218	144
24									218	144
25									218	144
26	4	2		1					222	147
27					1		2		219	147
28									219	147
29									219	147
30							1		218	147
31									218	147
Total	9	6	1	1	3		3			

MONTH OF APRIL, 1906.

[Remaining March 31, 1906: Males, 218; females, 147.]

Day.	Number admitted.		Number recaptured.		Number died.		Number escaped.		Number remaining.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1	2	1						2	220	146
2									220	146
3					1		1		218	146
4									218	146
5									218	146
6						1			218	145
7					1				217	145
8									217	145
9									217	145
10									217	145
11									217	145
12		1				1			217	145
13							1	1	216	144
14									216	144
15									216	144
16	1								217	144
17									217	144
18									217	144
19			1						218	144
20									218	144
21									218	144
22									218	144
23									218	144
24		1							218	145
25									218	145
26									218	145
27	1								219	145
28	2	1							221	146
29									221	146
30									221	146
Total	6	4	1		2	2	2	3		

Report of Cebu leper hospital from September 1, 1905, to May 25, 1906—Continued.

MONTH OF MAY, 1906.

[Remaining April 30, 1906: Males, 221; females, 146.]

Day.	Number admitted.		Number recaptured.		Number died.		Number escaped.		Number remaining.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1									221	146
2									221	146
3									221	146
4	1				2				220	146
5									220	146
6		1							220	147
7									220	147
8									220	147
9			1						221	147
10					1				220	147
11	1								221	147
12	1								222	147
13									222	147
14									222	147
15									222	147
16					1				221	147
17	1								222	147
18						1			222	146
19									222	146
20									222	146
21		1							222	147
22									222	147
23						1			222	146
24	2								224	146
25					1		5	1	218	145
Total	6	2	1		5	2	5	1		

NOTE.—Statistical tables for period prior to September 1, 1905, not available.

STATISTICS, SANITARY ENGINEERING DIVISION.

Orders and recommendations.

NUMBER OF ORDERS ISSUED.

Month issued.	Sanitary engineering division.	Health district.							Total.
		No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	No. 7.	
1905.									
July	123	1					1	6	131
August	89	1		1			2	7	100
September	157			19			1	2	179
October	174			14			2	2	192
November	143			6			1	6	156
December	125				1		3	2	131
1906.									
January	145						3	4	152
February	180				13				193
March	82	4			41	3		3	133
April	543	5	2	22		2			574
May	184	7	2			1			194
June	55	1	1	2	1	13			73
Total	2,000	19	5	64	56	19	13	32	2,208

Orders and recommendations—Continued.

NUMBER OF ORDERS OBEYED.

Month issued.	Sanitary engineering division.	Heath district.							Total.
		No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	No. 7.	
1905.									
July	122	--------	--------	--------	--------	--------	1	6	129
August	88	1	--------	1	--------	--------	2	7	99
September	157	--------	--------	19	--------	--------	1	1	178
October	165	--------	--------	14	--------	--------	2	2	183
November	135	--------	--------	6	--------	--------	1	6	148
December	117	--------	--------	--------	1	--------	3	2	123
1906.									
January	132	--------	--------	--------	--------	--------	2	4	138
February	173	--------	--------	--------	8	--------	--------	--------	181
March	72	4	--------	--------	34	3	--------	3	116
April	359	4	2	13	--------	2	--------	--------	380
May	80	7	1	--------	--------	--------	--------	--------	88
June	4	--------	--------	2	1	--------	--------	--------	7
Total	1,604	16	3	55	44	5	12	31	1,770

NUMBER OF ORDERS UNCOMPLETED.

Month issued.	Sanitary engineering division.	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	No. 7.	Total.
1906.									
April	171	--------	--------	5	--------	--------	--------	--------	176
May	92	--------	1	--------	--------	1	--------	--------	94
June	40	1	1	--------	--------	13	--------	--------	55
Total	303	1	2	5	--------	14	--------	--------	325

NUMBER OF ORDERS CANCELED AND DISAPPROVED.

Month issued.	Sanitary engineering division.	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	No. 7.	Total.
1905.									
July	1	1	--------	--------	--------	--------	--------	--------	2
August	1	--------	--------	--------	--------	--------	--------	--------	1
September	--------	--------	--------	--------	--------	--------	--------	1	1
October	9	--------	--------	--------	--------	--------	--------	--------	9
November	8	--------	--------	--------	--------	--------	--------	--------	8
December	8	--------	--------	--------	--------	--------	--------	--------	8
1906.									
January	13	--------	--------	--------	--------	--------	1	--------	14
February	7	--------	--------	--------	5	--------	--------	--------	12
March	10	--------	--------	--------	7	--------	--------	--------	17
April	13	1	--------	4	--------	--------	--------	--------	18
May	12	--------	--------	--------	--------	--------	--------	--------	12
June	11	--------	--------	--------	--------	--------	--------	--------	11
Total	93	2	--------	4	12	--------	1	1	113

HOUSES RECOMMENDED CONDEMNED AND DESTROYED.

Month.	Health disirict.							Total.
	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	No. 7.	
1905.								
July	--------	--------	47	--------	--------	--------	--------	47
December	24	84	10	35	110	--------	4	267
1906.								
February	24	--------	9	2	--------	1	--------	36
Total	48	84	66	37	110	1	4	350

Prosecutions for failure to comply with sanitary orders.

Month.	Number of prosecutions.	Amount of fines imposed.	Month.	Number of prosecutions.	Amount of fines imposed.
1905.			1906.		
July	1	₱25	January	5	₱110
August	2	65	February	1	20
September	1	30	March	2	50
October	4	150	April	2	45
November	4	150	May	1	30
December	4	85	June	2	75
			Total	28	835

Plans for new buildings approved.

Month.	Health district.							Total.
	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	No. 7.	
1905.								
July	1	2	2	3	2	1	5	16
August	1	4	1	4	4	1	8	23
September	1	5	8	2	4	4	10	34
October	5	6	2	7	3		7	30
November	4	8	4	8	3	3	10	40
December	1	8	4	1	1		6	21
1906.								
January		3	5	9	7	1	6	31
February	3	4	4	3	1		9	24
March		5	4	2	8		13	32
April	6	3	3	6	2			20
May	8	2	2	3	2			17
June	4	3	1	5	2			15
Total	34	53	40	53	39	10	74	303

Personnel of the division.

Month.	Engineers.	Inspectors.	Clerks.	Translators.	Draftsmen.	Messengers.	Total.
1905.							
July	1	2	1	1	1		6
August	1	3	2	1	1		8
September	1	2	1	1	1		6
October	1	1	1	1	1		5
November	1	1	1	1	1		5
December	1	2	1	1	1		6
1906.							
January	1	2	1	1	1		6
February	1	1	1	1	1		5
March	1	1	1	1	1		5
April	1	2	1	1	1	1	7
May	1	2	1	1	1	1	7
June	1	3	1	1	1	1	8

FINANCIAL STATEMENT OF THE BUREAU OF HEALTH.

The following statement shows the expenditures made during the fiscal year 1906 chargeable against the appropriation made in Act No. 1416 for the maintenance of the Bureau during that period, and expenditures made from July 1, 1906, to August 14, 1906, in payment of obligations incurred during the fiscal year 1906 and properly chargeable against funds appropriated for the maintenance of the Bureau for the fiscal year 1906.

The Philippine Civil Hospital, the Civil Sanitarium, Benguet, and the prison sanitation division were merged with the Bureau of Health November 1, 1905. For the maintenance of these institutions during the first four months of the fiscal year, there was appropriated as follows:

Philippine Commission, Act No. 1416.

Philippine Civil Hospital:		
Salaries and wages	₱24,500.00	
Contingent expenses	41,500.00	
		₱66,000.00
Civil sanitarium, Benguet:		
Salaries and wages	6,500.00	
Contingent expenses	16,750.00	
		23,250.00
Prison sanitation division, figures not available.		
Bureau of Health: There was appropriated for the operation of the Bureau of Health as originally constituted, July 1 to October 31, 1905; and for the maintenance of the Bureau of Health, including the Civil Hospital, the Benguet sanitarium, and the prison sanitation division, November 1, 1905, to June 30, 1906		902,500.00
		991,750.00

Expenditures were made, charged to above appropriations, as follows:

July 1, 1905, to October 31, 1905.

Philippine Civil Hospital:		
Salaries and wages		₱23,953.41
Contingent expenses—		
Subsistence supplies	₱21,692.80	
Medicines, medical and surgical supplies	6,752.20	
Miscellaneous and general supplies	860.63	
Purchase of equipment	2,198.27	
Repairs to equipment	147.53	
Rent	4,200.00	
Lights	1,098.27	
Rent of telephone	60.00	
Fuel and oil	629.16	
Laundry	2,645.63	
Forage	957.35	
Shoeing horses	103.50	
Repairs to vehicles	5.51	
Traveling expenses of employees	96.35	
Transportation in Manila	64.90	
Box rent, post-office	16.00	
Incidentals	415.37	
		41,943.47
		65,896.88

July 1, 1905, to October 31, 1905—Continued.

Civil sanitarium, Benguet:			
Salaries and wages			₱6,311.00
Contingent expenses—			
Subsistence supplies		₱7,403.90	
Hospital furnishings		5,629.01	
Medical and surgical supplies		690.19	
Fuel—			
Wood	₱129.00		
Oil	82.50		
		211.50	
Rent of buildings		48.00	
Traveling expenses of employees		629.24	
Maintenance of transportation—			
Freight	₱94.69		
Feed, etc	1,126.22		
		1,220.91	
Repairs		92.57	
Laundry		633.46	
Incidentals		286.01	
			16,484.79
			22,795.79

From funds appropriated for the maintenance of the Bureau of Health for the entire fiscal year, and of the Civil Hospital, the Benguet sanitarium, and prison sanitation division for the latter eight months of the year, expenditures were made as follows:

Salaries and wages:		
General	₱199,259.08	
Vaccinating division	42,978.75	
San Lazaro Hospitals	41,616.32	
Cebu Leper Hospital	1,110.00	
Sampaloc Hospital (July 1 to December 31, 1905)	3,887.32	
Medical, dental, and pharmaceutical examining boards	1,243.84	
Emergency funds, general	2,076.03	
Culion leper colony division	11,350.53	
Civil Hospital division	42,513.69	
Prison sanitation division	9,393.29	
Benguet sanitarium	10,542.47	
Emergency funds—		
Civil Hospital	964.01	
Benguet sanitarium	370.46	
		367,305.79
Contingent expenses:		
General—		
Medicines, indigent natives in provinces	2,104.99	
Medicines, indigent natives in Manila	4,773.43	
Disinfecting apparatus and disinfectants	10,236.76	
Surgical instruments	640.88	

July 1, 1905, to October 31, 1905—Continued.

Contingent expenses—Continued.			
General—Continued.			
Repairs to vehicles, general		₱1.00	
Stationery, office supplies		3,546.16	
Bottles, shipping boxes, etc		796.28	
Post-office box rent		32.00	
Office laundry		13.48	
Transportation of freight		1,325.02	
Telephones, general		620.90	
Repairs to office furniture		118.41	
Purchase of office furniture		209.90	
Periodicals		41.44	
Cablegrams		100.90	
Postage and telegrams		1,328.38	
Printing		8,754.90	
Transportation in the city of Manila		18,684.16	
Traveling expenses, regular employees		12,644.11	
Incidental expenses, general		130.84	
Hospicio de San José		50,499.60	
Colegio de Santa Isabel		5,267.17	
Saint Vincent de Paul Orphan Asylum		458.85	
Bounty to rat catchers		6,785.95	
Sanitary stations—			
Incidentals	₱241.94		
Rent	1,525.00		
Central free dispensary, incidentals	23.21		
Municipal pharmacies	612.50		
		2,402.65	
			₱131,518.16
Vaccinating division—			
Ice for preservation of virus		527.85	
Purchase of vaccine		15,160.53	
Traveling expenses of vaccinators		5,484.15	
Antiseptic supplies and dressings for vaccinators		3,929.68	
			25,102.21
			156,620.37
San Lazaro Hospitals division—			
Subsistence		47,423.69	
Leper gratuity		2,214.74	
Medicines		2,088.70	
Towels		204.57	
New furniture		99.00	
Fuel		1,706.42	
Light		2,817.18	
Soap		1,874.40	
Forage		594.69	
Tobacco, cigarrettes, etc		686.14	

July 1, 1905, to October 31, 1905—Continued.

Contingent expenses—Continued.		
San Lazaro Hospitals division—Continued.		
Clothing—		
Insane department	₱1,077.34	
Leper department	1,933.89	
Bedding	552.93	
Incidentals	4,750.87	
		₱68,024.56
		224,644.93
Civil Hospital division—		
Subsistence	39,120.07	
Medicines	6,589.89	
Miscellaneous and general supplies	1,931.26	
Repairs to and purchase of new equipment	1,466.94	
Rent, buildings	8,523.32	
Lights	2,097.86	
Rent of telephones	82.67	
Coal and oil	870.78	
Laundry	4,701.80	
Forage	379.19	
Shoeing horses	60.79	
Repairs to vehicles	532.86	
Traveling expenses of employees	102.98	
Post-office box rent	16.00	
Incidental expenses	418.07	
		66,894.48
Credit: Sale of horses, transportation in Manila		607.60
		66,286.88
		290,931.81
Prison sanitation division—		
Expendable medicines, medical supplies, and disinfectants		10,632.44
		301,564.25
Benguet sanitarium division—		
Subsistence	12,529.00	
Hospital furnishings	1,138.73	
Medicines and surgical supplies	450.42	
Fuel	1,095.00	
Rent of buildings	45.00	
Travel expenses of employees	210.18	
Maintenance of transportation	632.60	
Repairs	36.60	
Laundry	1,249.81	
Incidentals	186.15	
		17,573.49
		319,137.74

July 1, 1905, to October 31, 1905—Continued.

NOTE.—The foregoing amount of subsistence supplies shown as purchased by the Benguet sanitarium division for the entire year is subject to a credit of ₱5,751.61, being the net amount of commissary supplies sold to Mr. C. M. Jenkins under the terms of the lease of the sanitarium.

Contingent expenses—Continued.		
Culion leper colony—		
Subsistence—		
Employees	₱1,762.17	
Lepers	16,090.48	
Kitchen equipment	590.56	
Hospital equipment	637.51	
Bedding towels, etc	1,158.44	
Band instruments	360.00	
Purchase of launch	2,600.00	
Stationery, printing, etc	110.17	
Fuel, light, etc	52.03	
Medicines and medical supplies	53.08	
Incidentals	659.35	
Transportation of lepers	1,920.00	
		₱25,993.79
		345,131.53
Cebu Leper Hospital:		
Subsistence	13,769.20	
Fuel and lights	156.00	
Gratuity	3,080.60	
Medicines	21.43	
Soap	39.60	
Clothing	623.51	
		17,690.34
		362,821.87
Sampaloc Hospital:		
Subsistence	3,757.73	
Rent of telephone	34.00	
Rent	1,500.00	
Medicines	1,273.11	
Fuel and lights	386.94	
Incidental expenses	347.77	
		7,299.55
		370,121.42

In addition to the foregoing statement of actual expenditures made from funds appropriated in Act No. 1416, there are the following outstanding obligations chargeable to the appropriation of the Bureau and funds appropriated for same during the fiscal year 1906:

General: Medicines and medical supplies for indigent natives in provinces	₱346.53
San Lazaro Hospitals division: Incidentals	14.00

July 1, 1905, to October 31, 1905—Continued.

Civil Hospital division:		
Medicines	₱752.45	
Miscellaneous supplies	96.00	
New equipment	28.00	
Table linen, towels, etc	150.00	
		₱1,026.45
Prison sanitation division: Medicines		150.00
Benguet sanitarium division:		
Medicinal and surgical supplies	102.87	
Hospital furnishings	50.07	
		152.94
Culion leper colony division:		
Medicines	102.95	
Stationery	82.17	
Maintenance	314.89	
Kitchen	86.34	
Clothing for lepers	2,823.16	
Incidentals	1,866.00	
Hospital furnishings	142.69	
Lepers, bedding, etc	1,162.06	
Construction	18.96	
		6,599.22
		8,289.14

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PLATE II. CENTRAL PHARMACY, BUREAU OF HEALTH, POTENCIANA BUILDING.

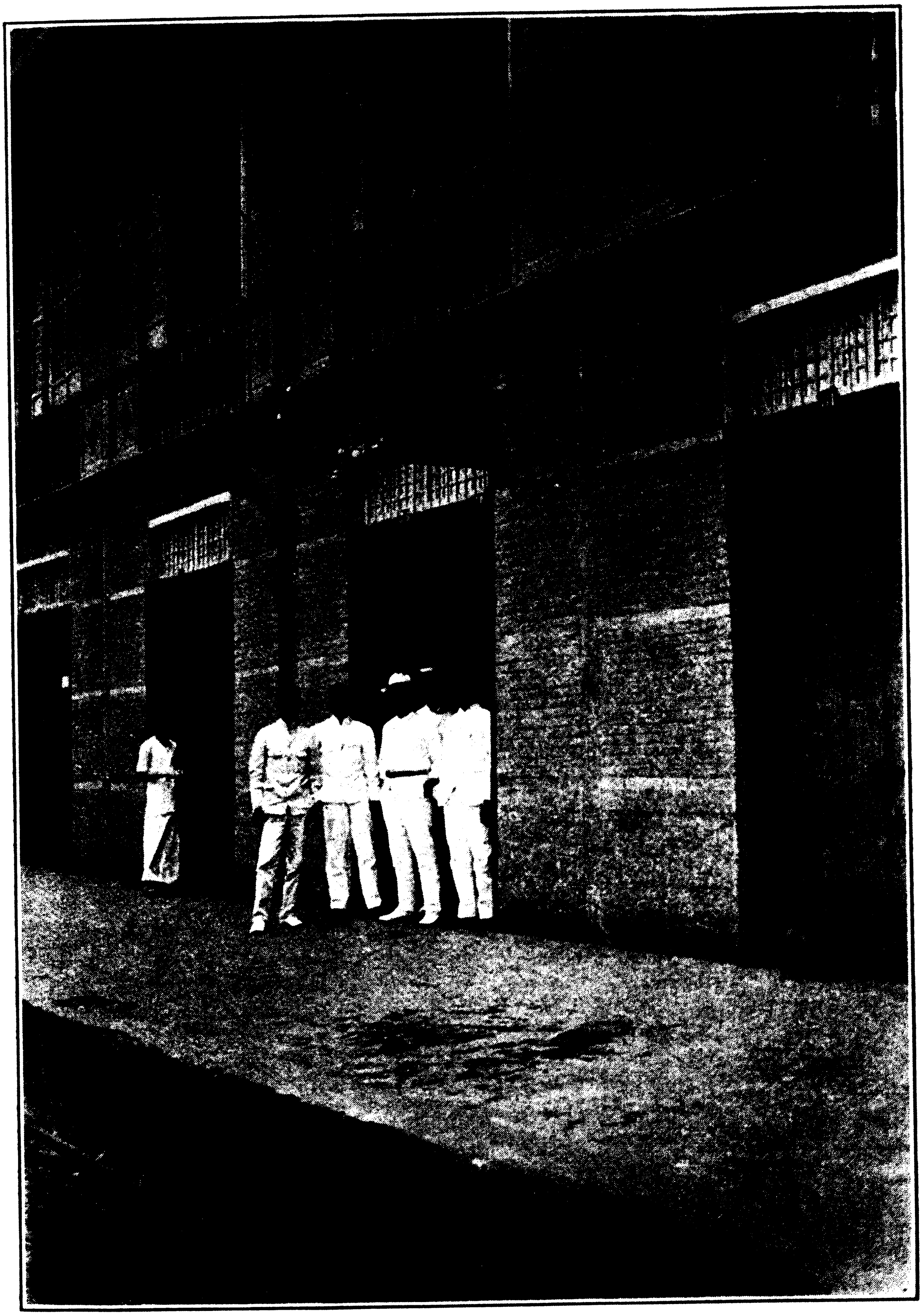

PLATE III. STATION "C," TONDO, BUREAU OF HEALTH.

Plate IV. TREATING PATIENTS, FREE DISPENSARY, STATION "C." TONDO, BUREAU OF HEALTH.

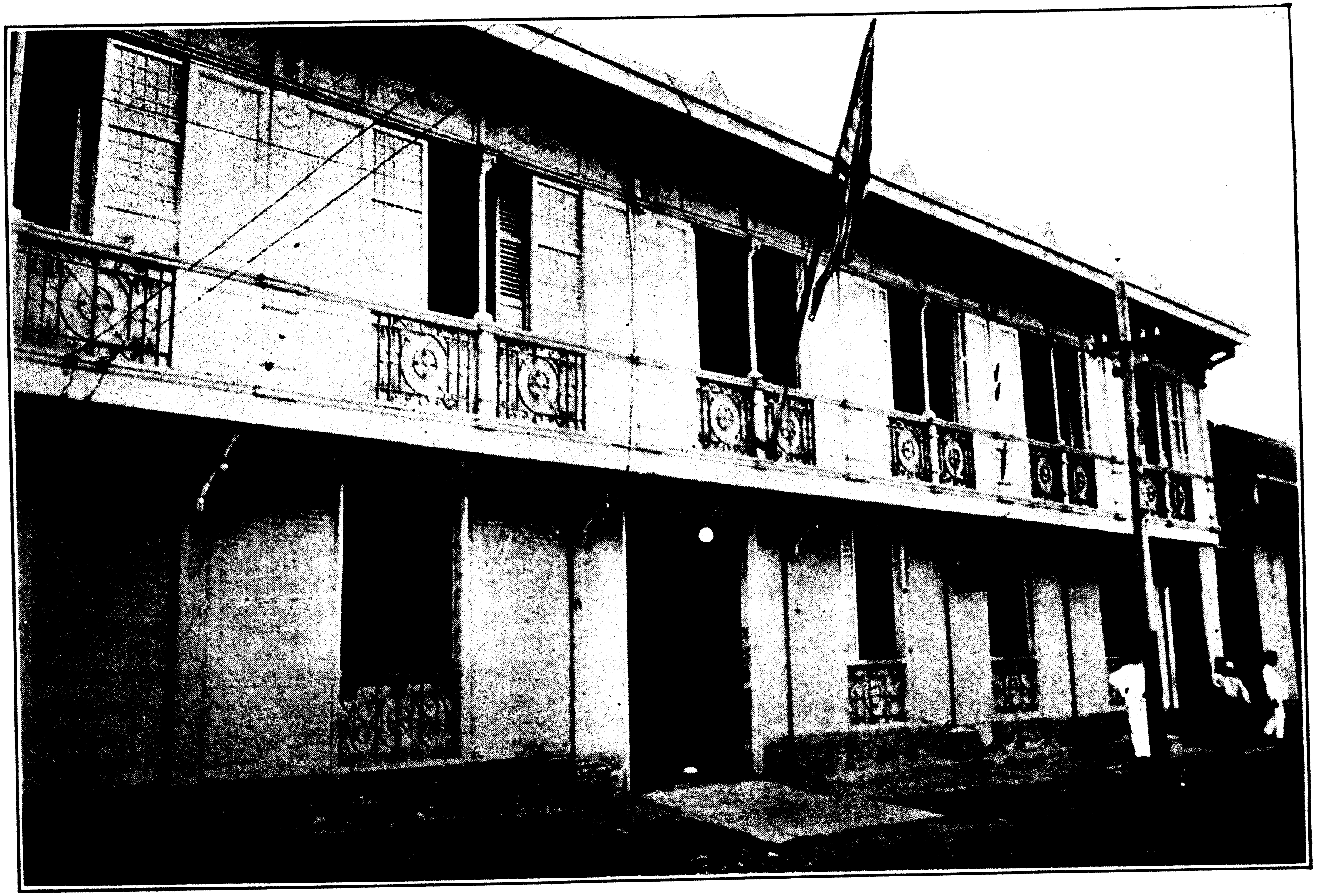

Plate V. DISTRICT HEALTH STATION "I," SAMPALOC, BUREAU OF HEALTH.

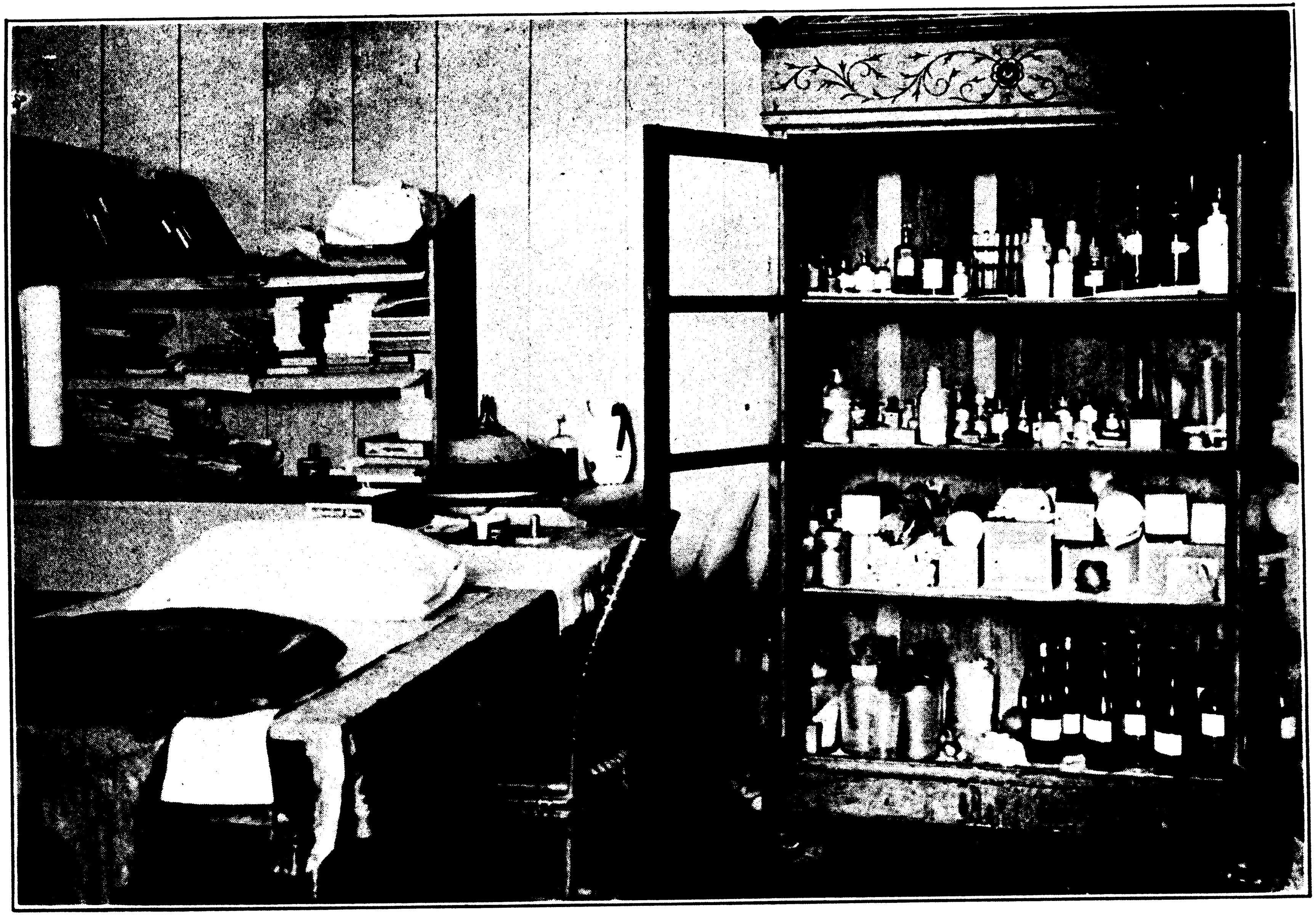

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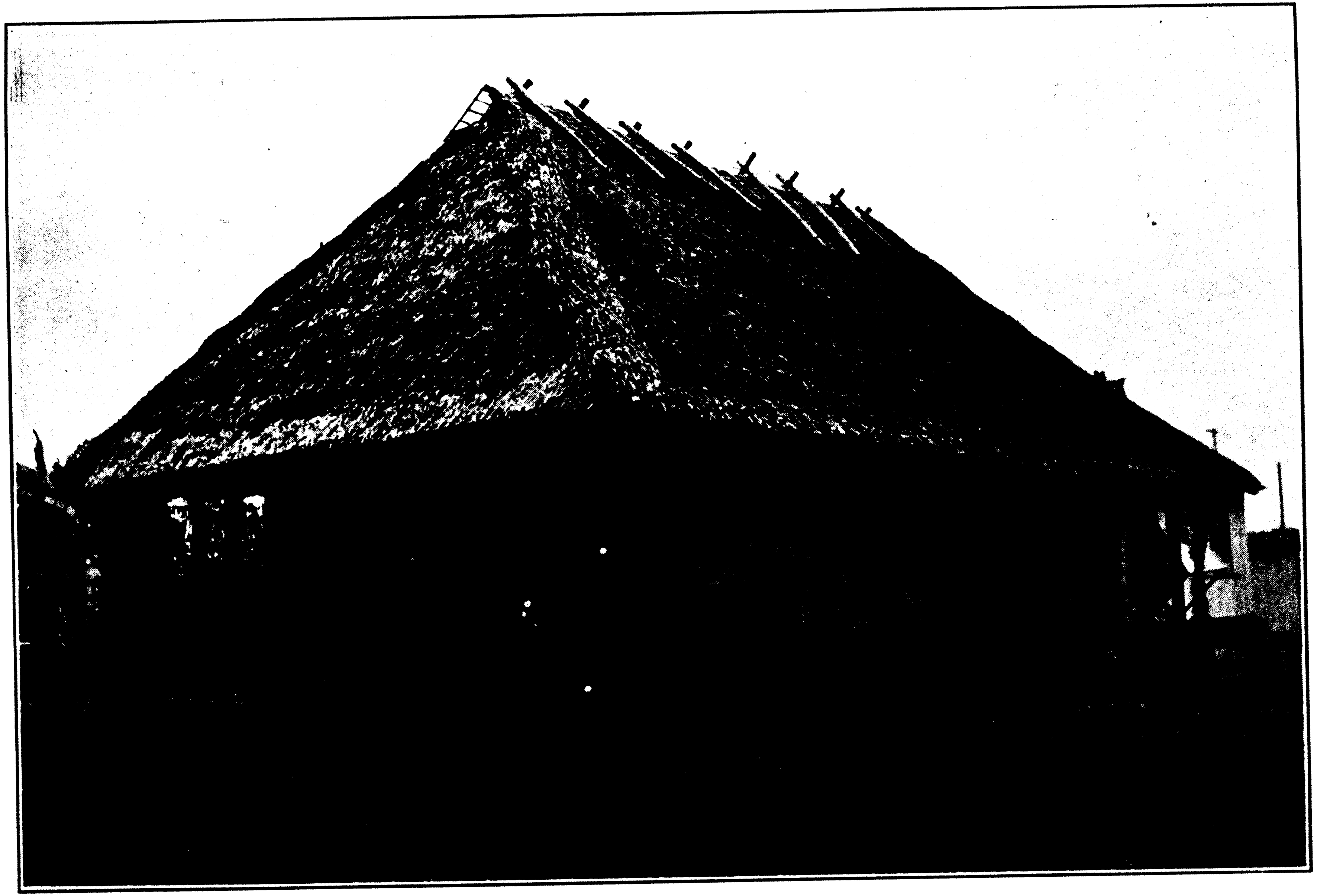
Plate VII. DISTRICT HEALTH STATION "L," PACO, BUREAU OF HEALTH.

PLATE VIII. MAIN ENTRANCE, SAN LAZARO HOSPITALS.



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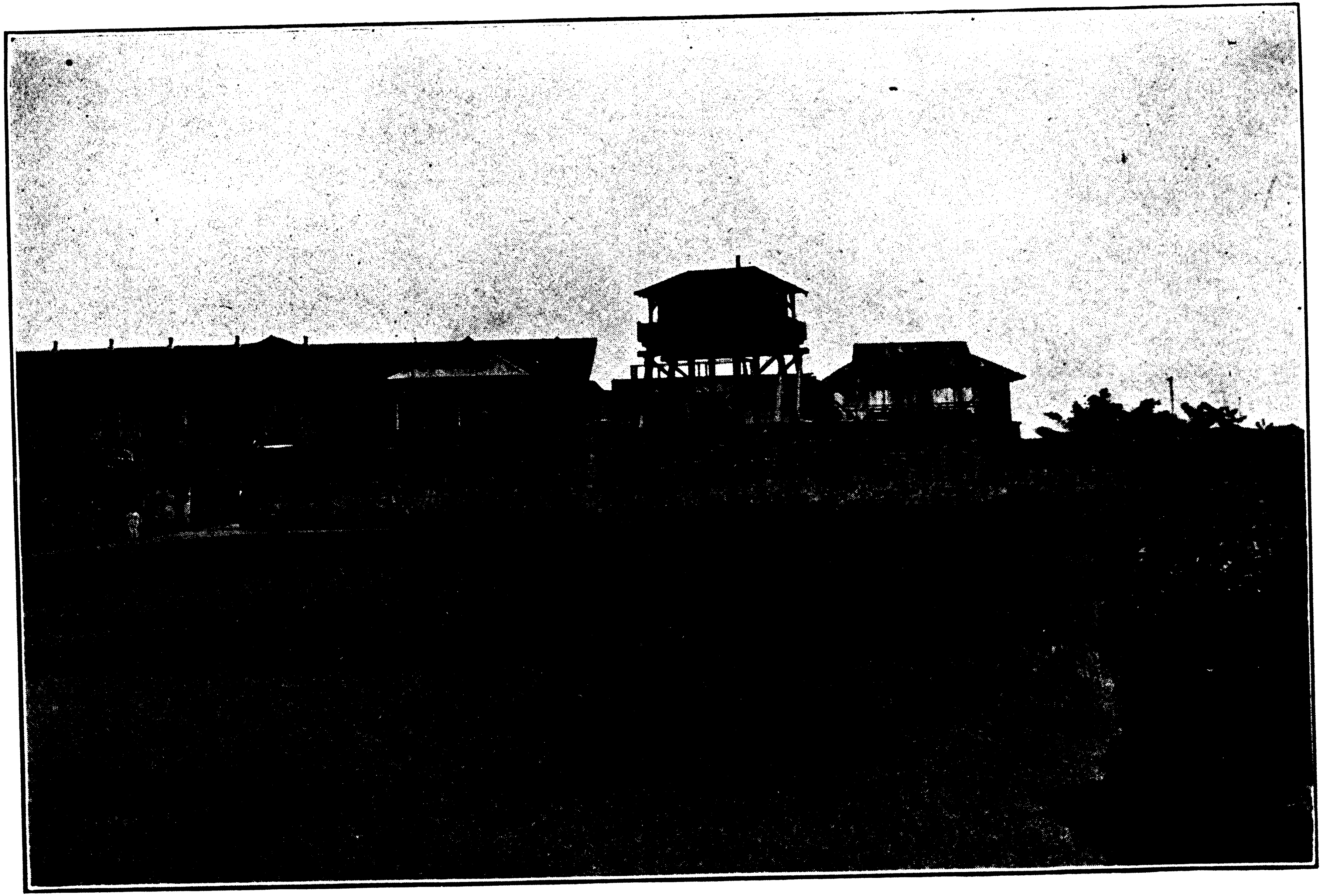

Plate X. SIDE VIEW, SAN LAZARO HOSPITALS.

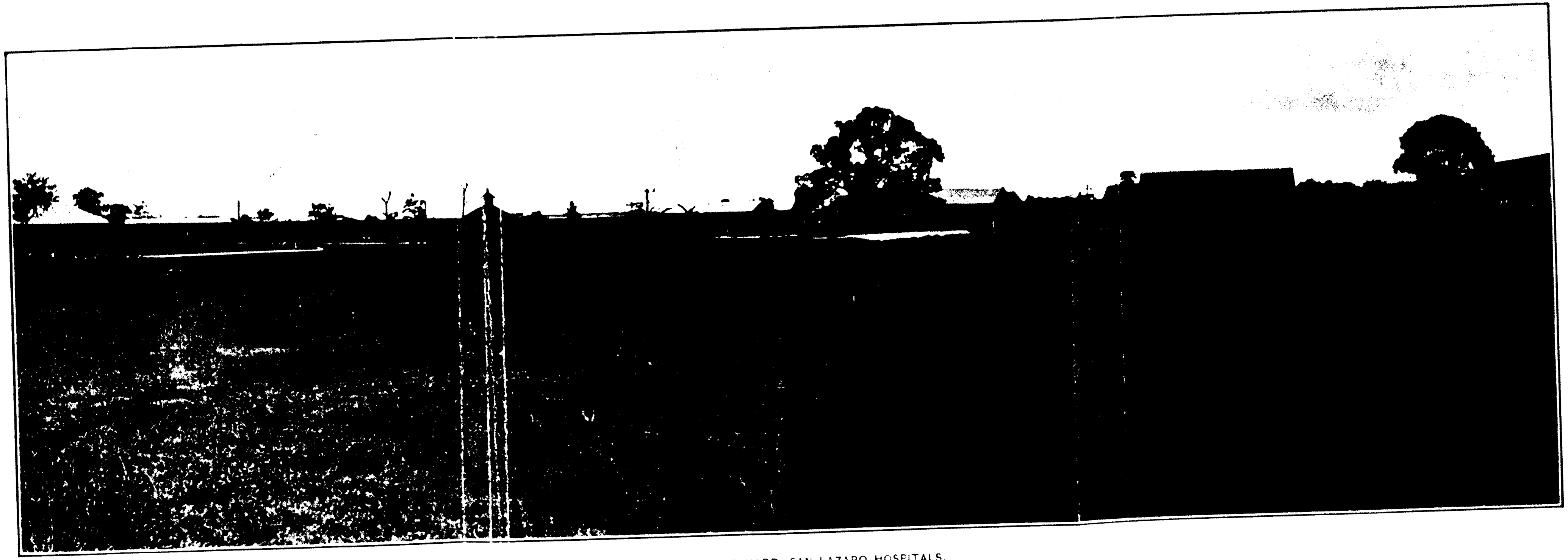

PLATE XI. REAR YARD, SAN LAZARO HOSPITALS.

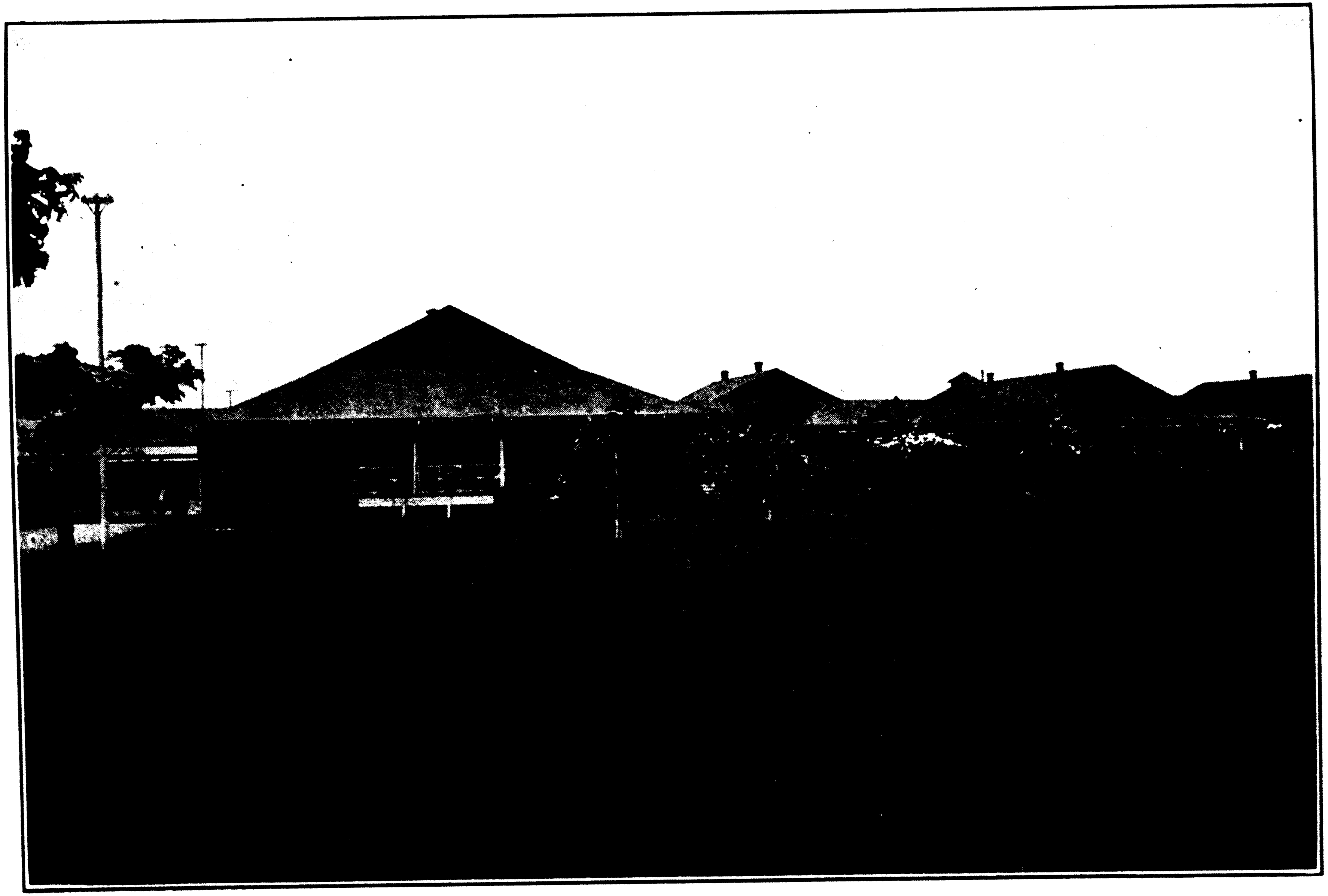

PLATE XII. SAN LAZARO CONTAGIOUS-DISEASES HOSPITALS.

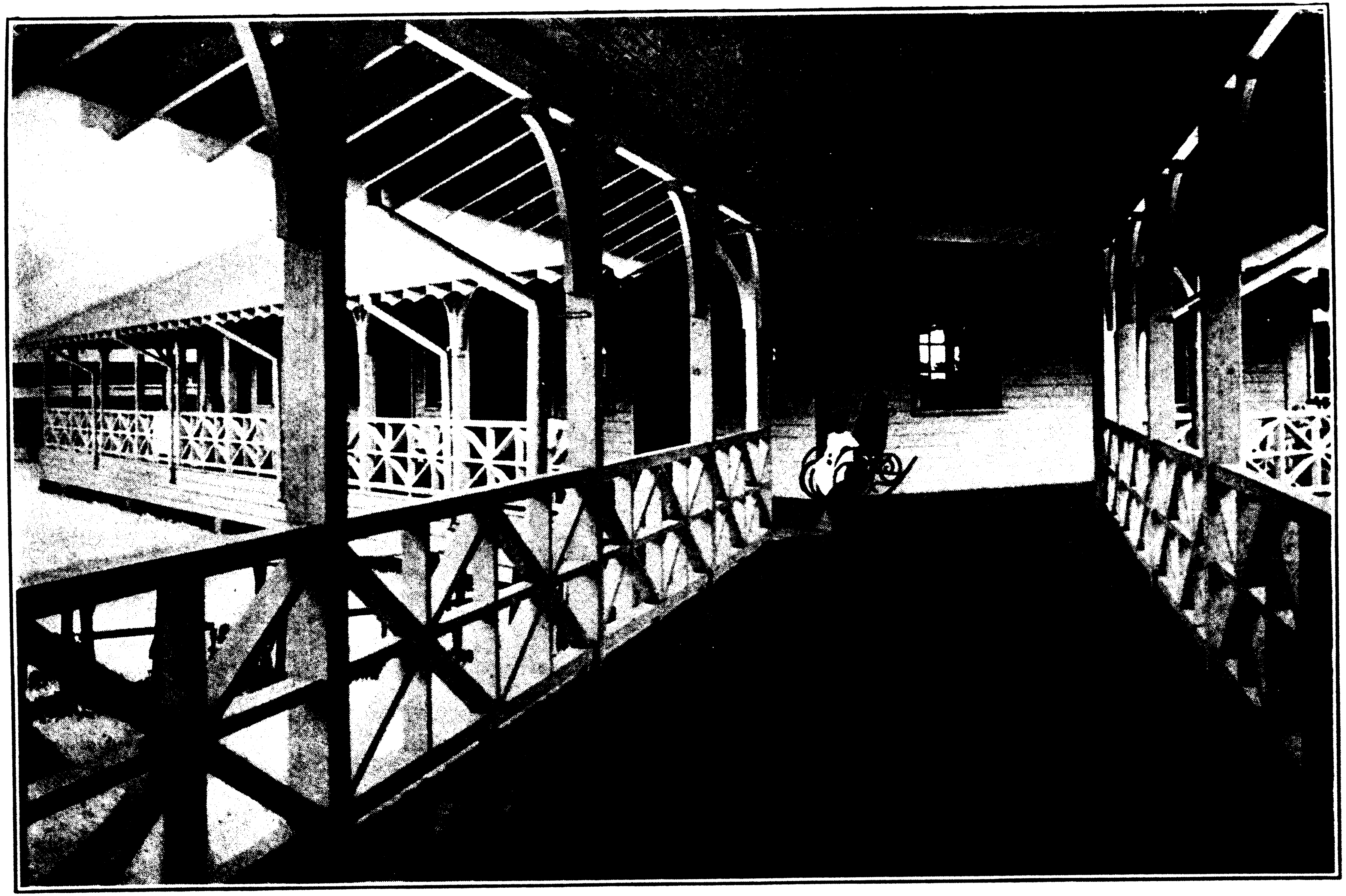

Plate XIII. VERANDAS, SAN LAZARO CONTAGIOUS-DISEASES HOSPITALS.

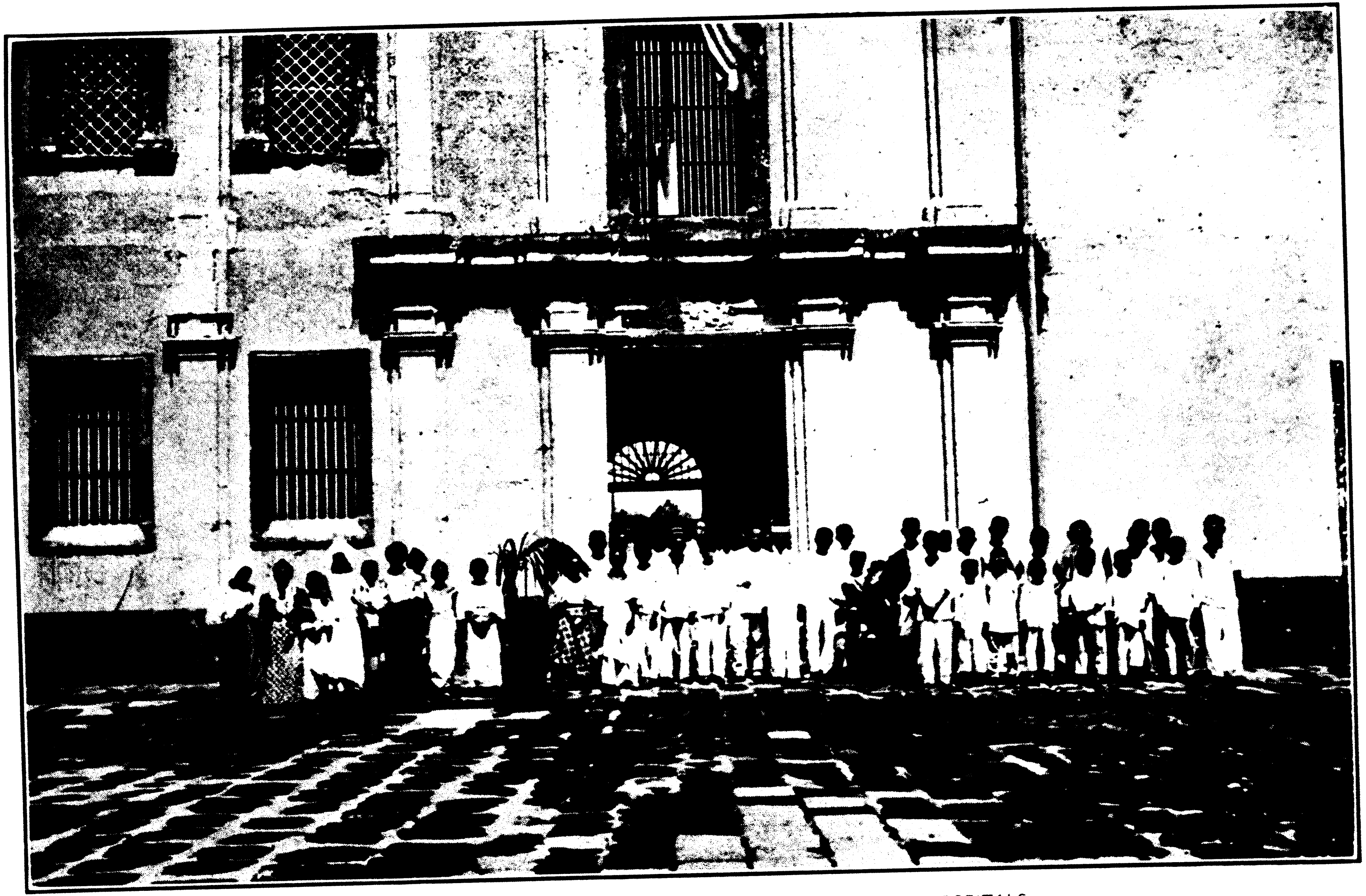

Plate XIV. MAIN ENTRANCE, LEPER HOSPITAL, SAN LAZARO HOSPITALS.

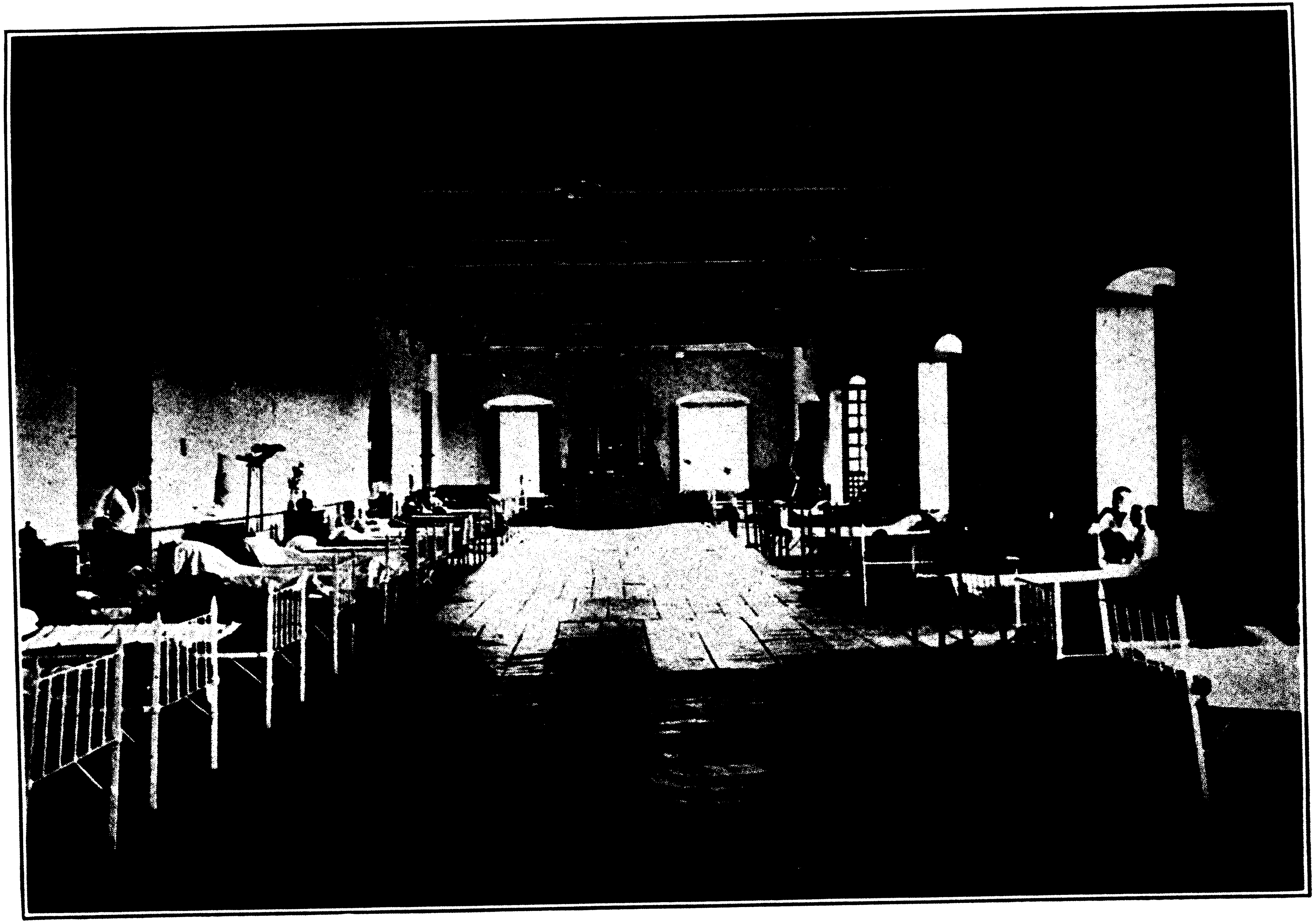

Plate XV. LEPER WARD. SAN LAZARO HOSPITALS

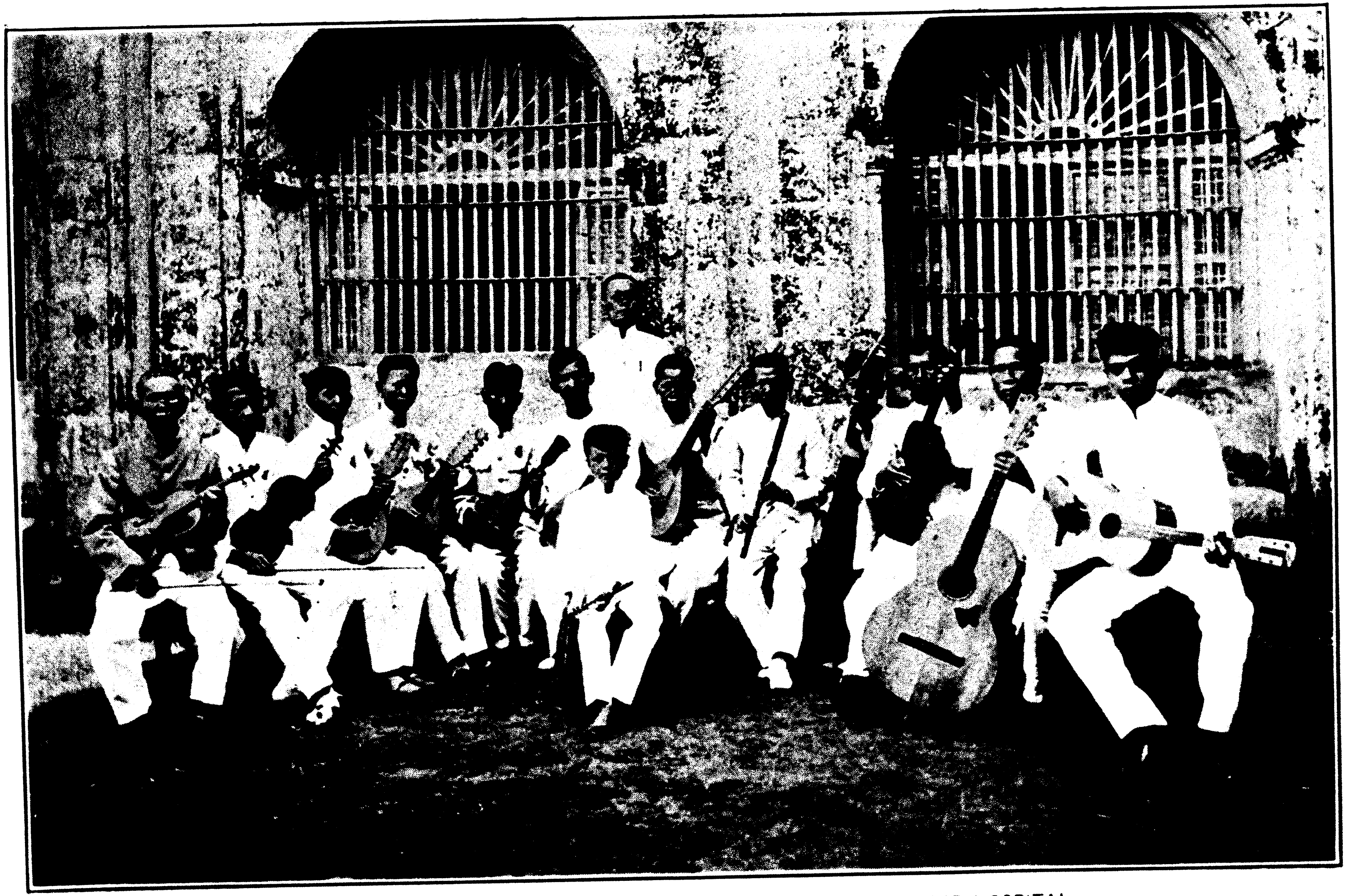

PLATE XVI. ORCHESTRA COMPOSED OF LEPERS, SAN LAZARO LEPER HOSPITAL.

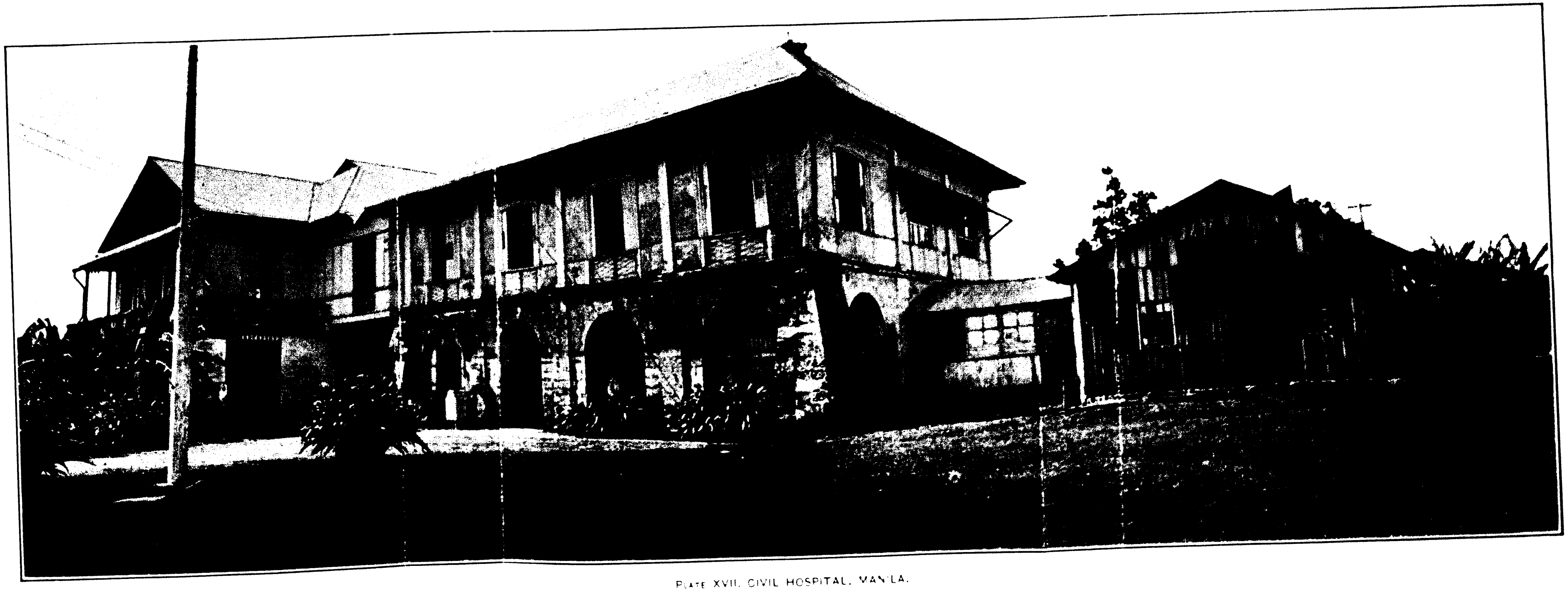

PLATE XVII. CIVIL HOSPITAL, MANILA.

PLATE XVIII. FRONT VIEW, CIVIL HOSPITAL, MANILA.

PLATE XIX. PHARMACY, CIVIL HOSPITAL, MANILA.

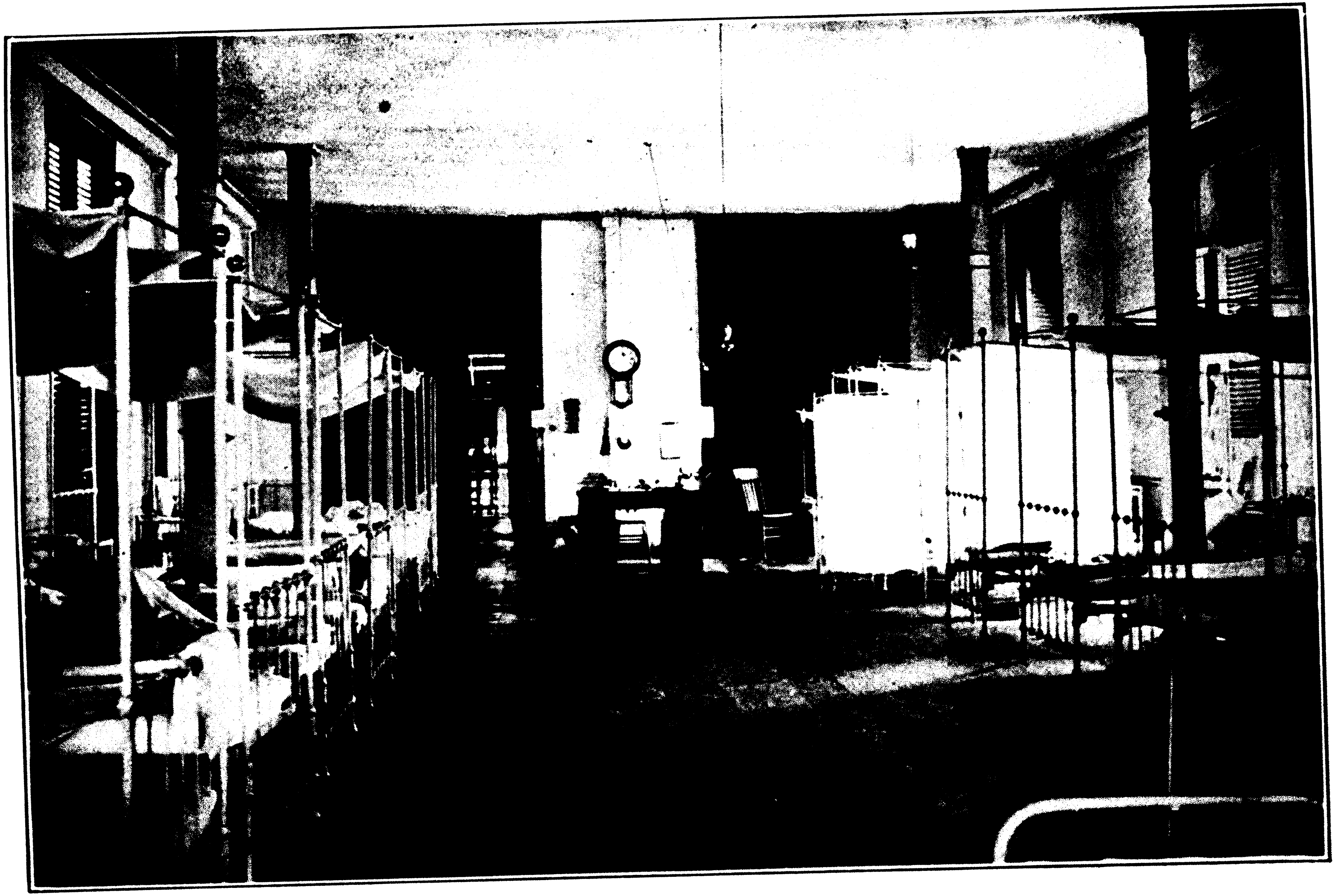

Plate XX. WARD, CIVIL HOSPITAL, MANILA.

Plate XXI. FREE WARD. CIVIL HOSPITAL, MANILA.

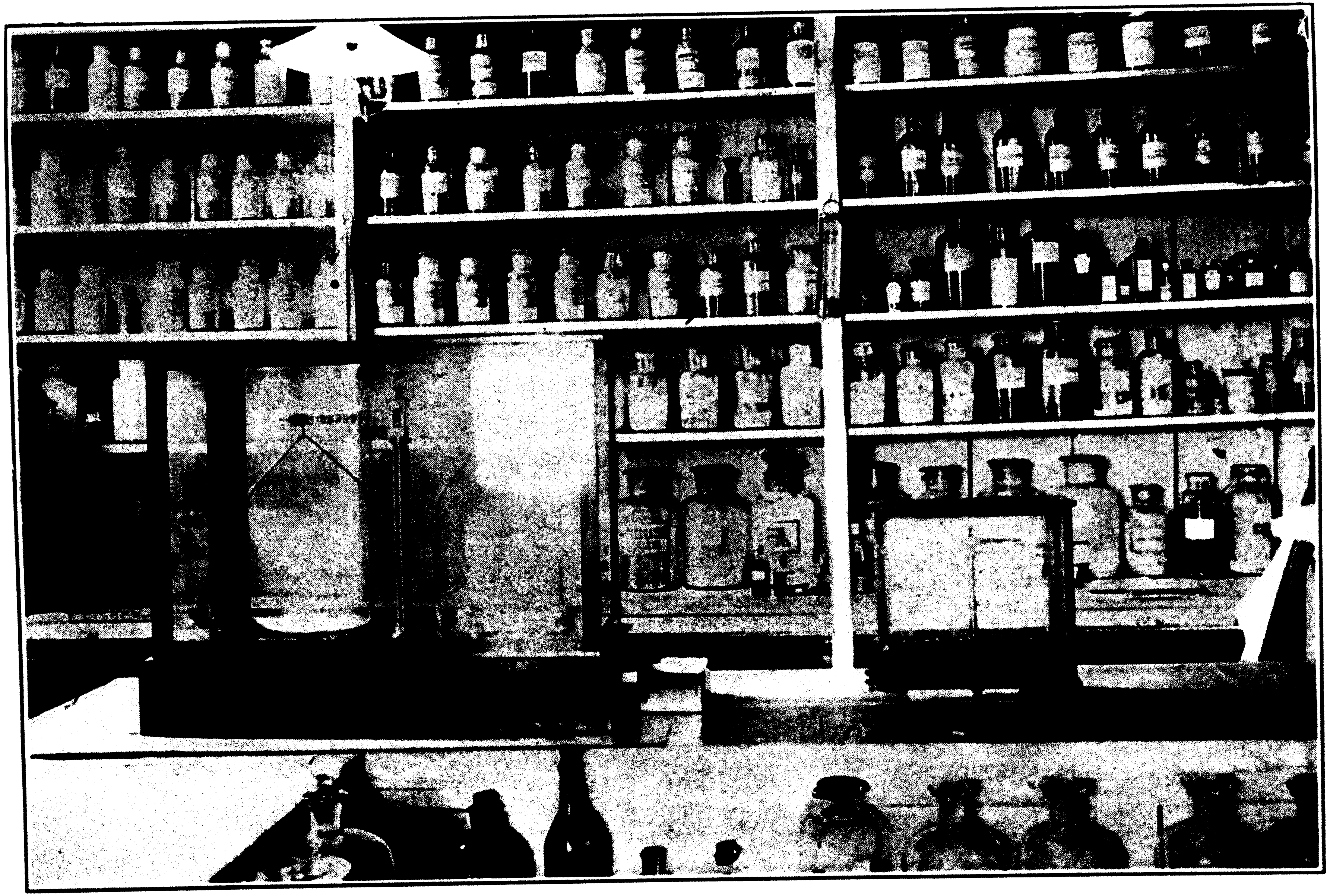

Plate XXII. PHARMACY, BILIBID PRISON.

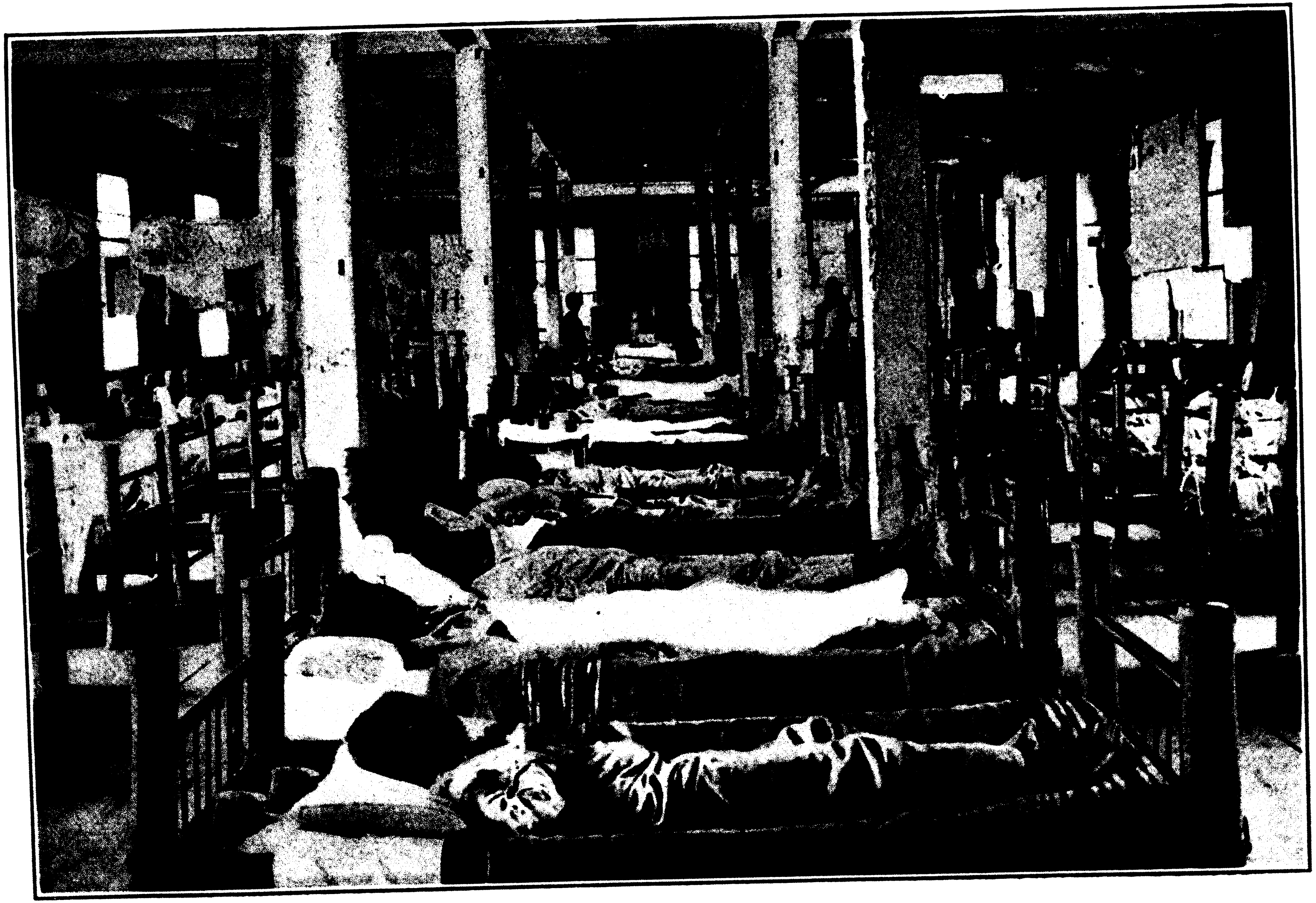

Plate XXIII. WARD, BILIBID PRISON HOSPITAL.

Plate XXIV. WARD. TUBERCULOSIS HOSPITAL "B," BILIBID PRISON.

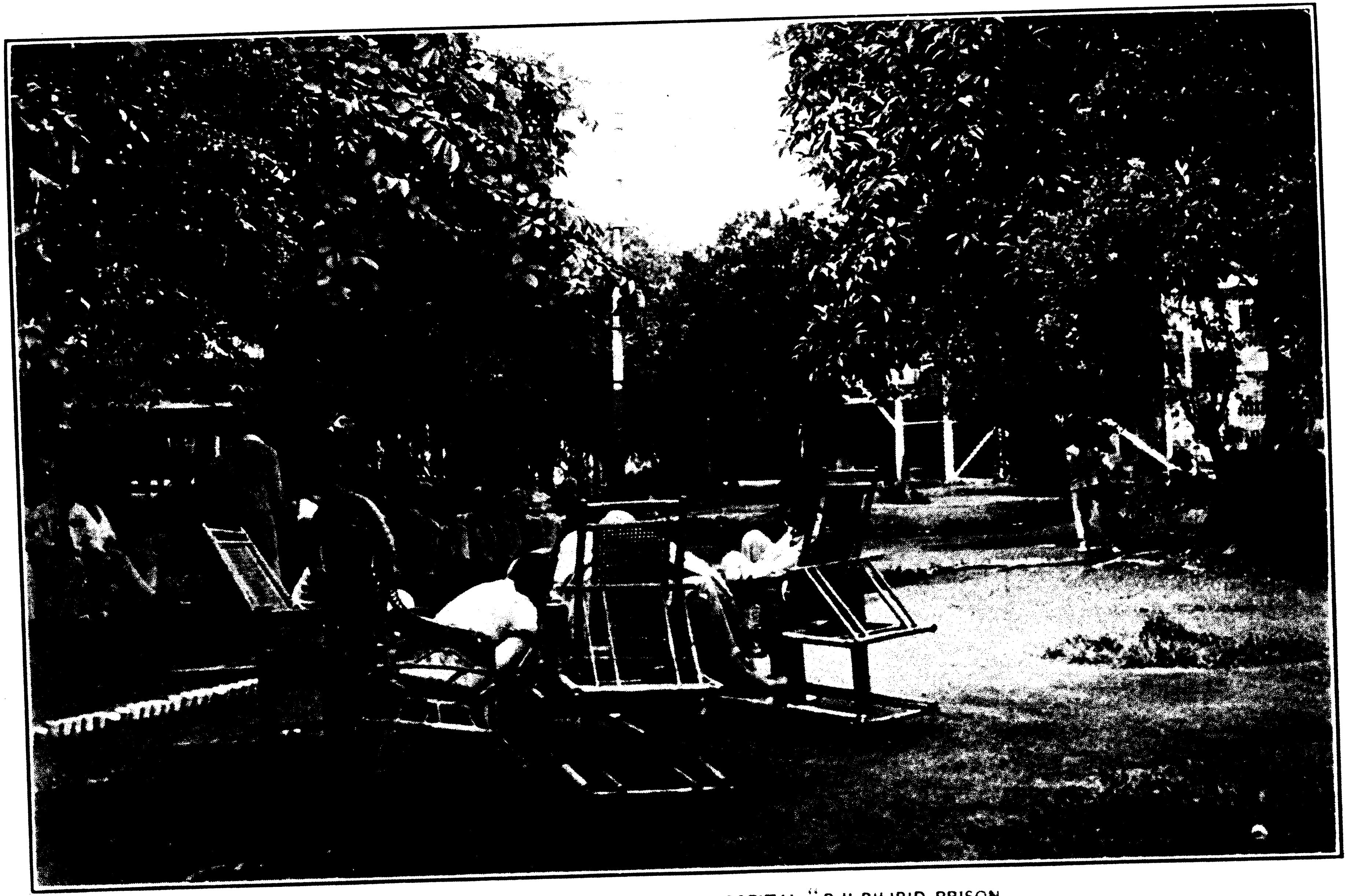

PLATE XXV. YARD AT TUBERCULOSIS HOSPITAL "B," BILIBID PRISON.

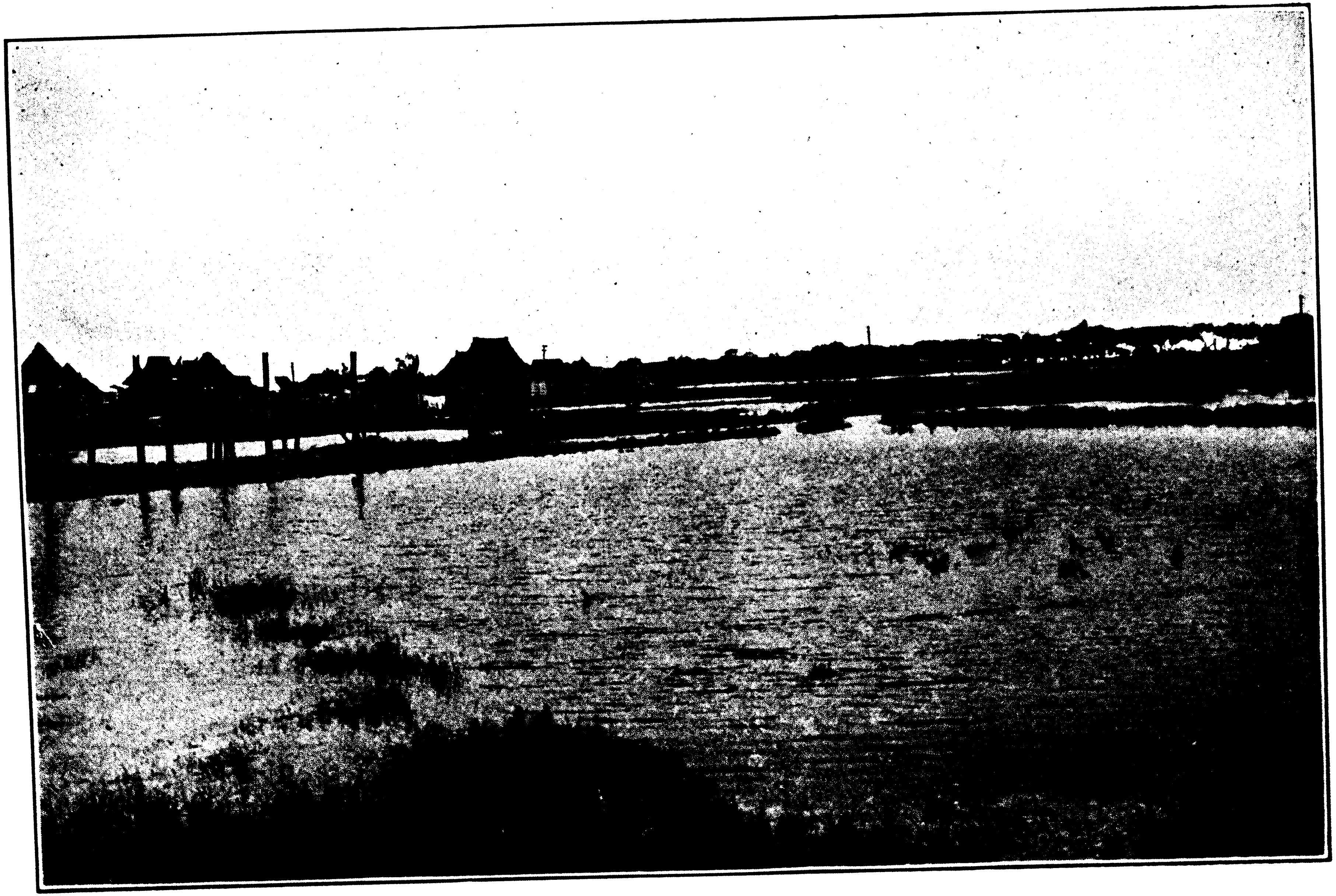

Plate XXVI. SOME OF MANILA'S LOWLANDS.

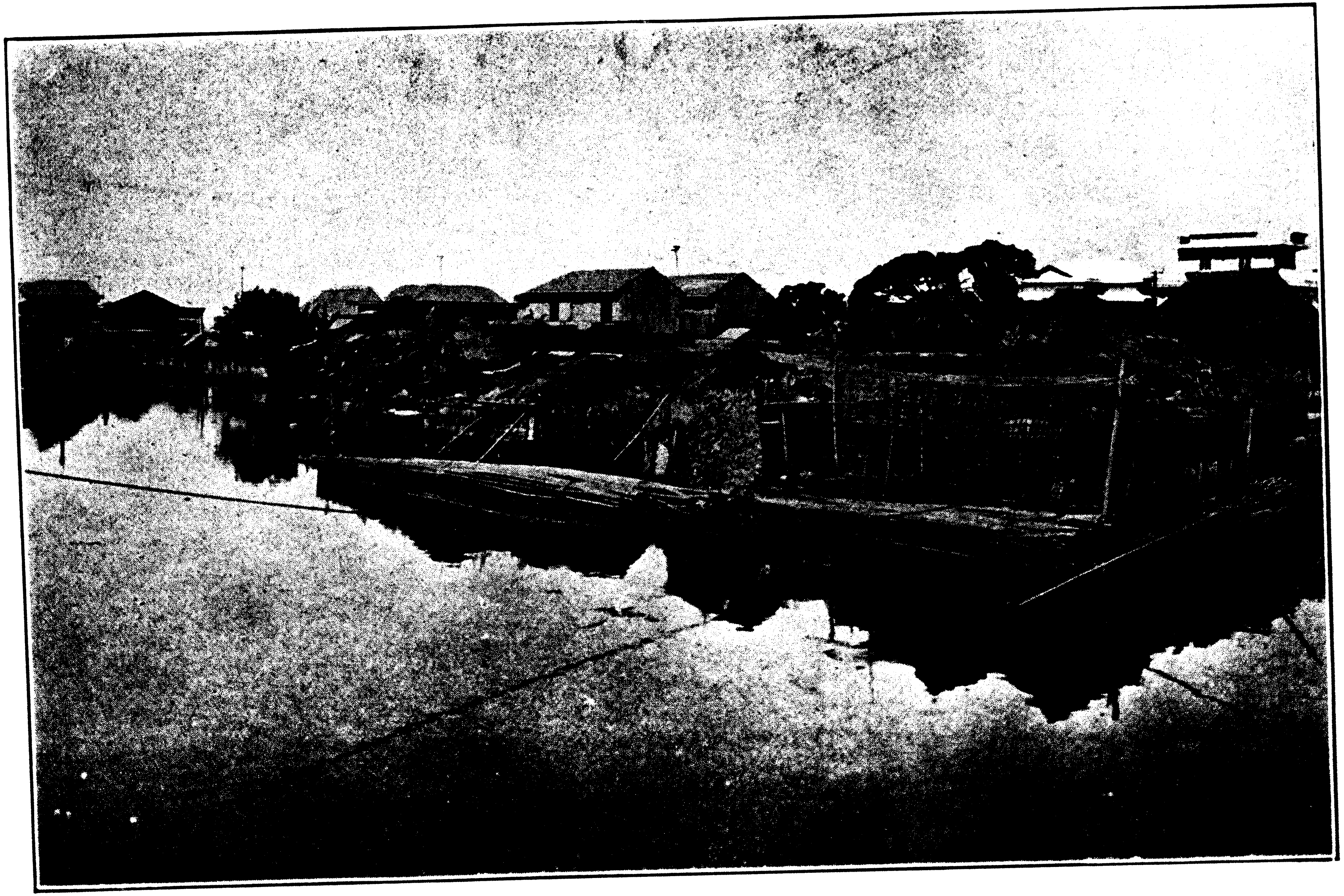

PLATE XXVII. NIPA HOUSES ALONG AN ESTERO, MANILA.

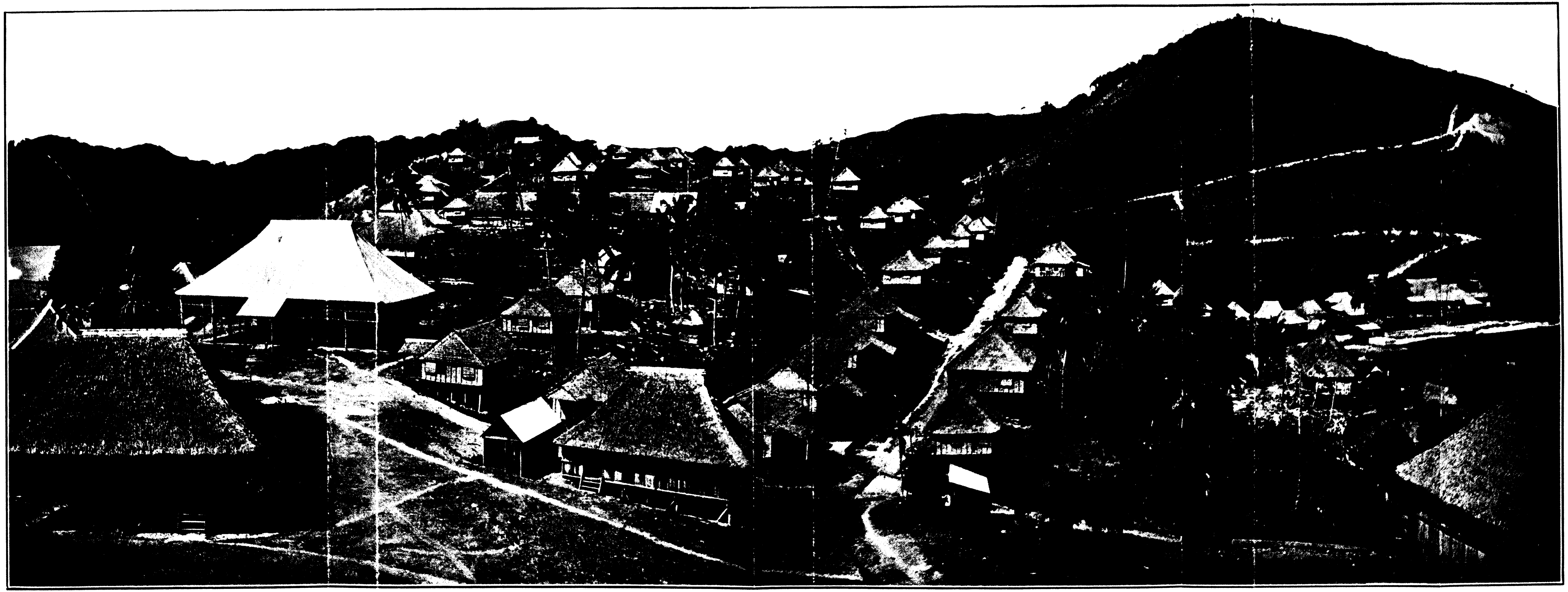

PLATE XXVIII. CULION LEPER COLONY, LOOKING TOWARD THE SOUTH.

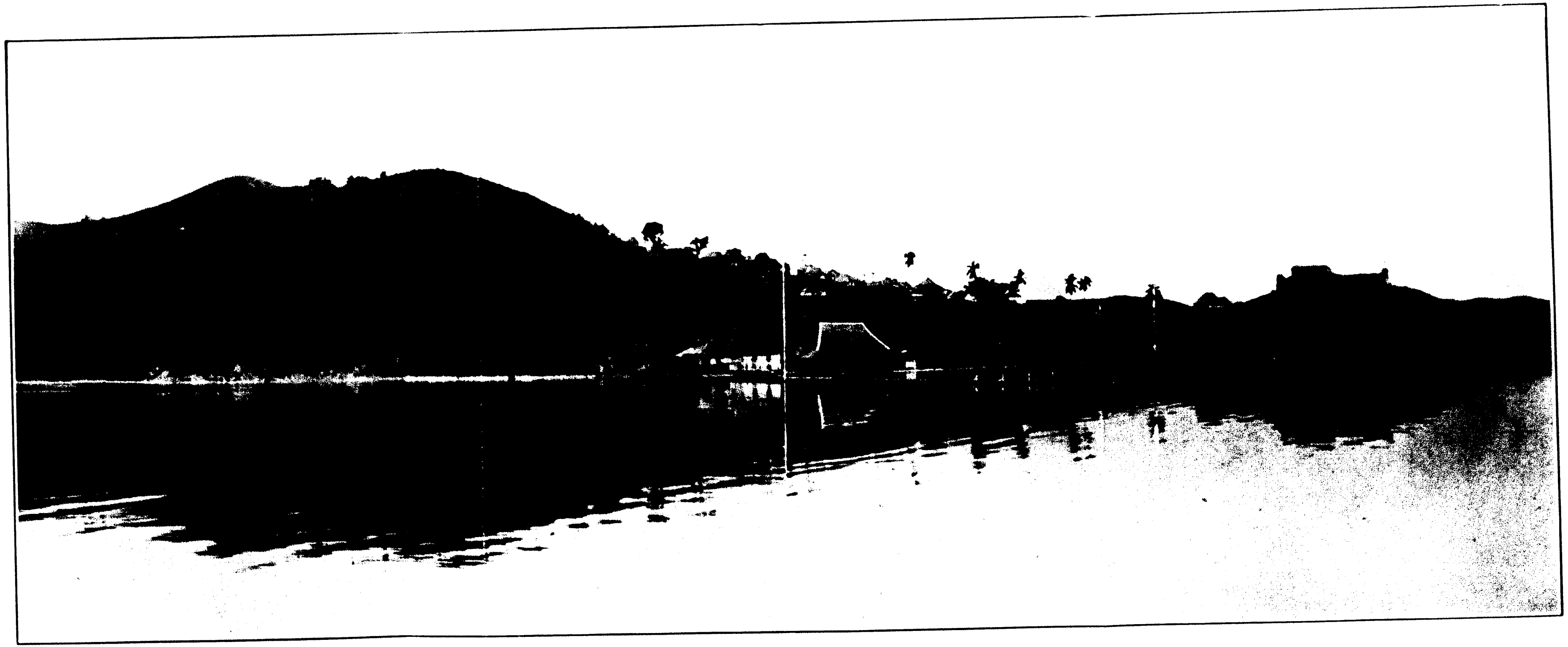

PLATE XXIX. CULION LEPER COLONY, LOOKING TOWARD THE NORTH.

PLATE XXX. CULION LEPER COLONY, LOOKING TOWARD THE SOUTHEAST.

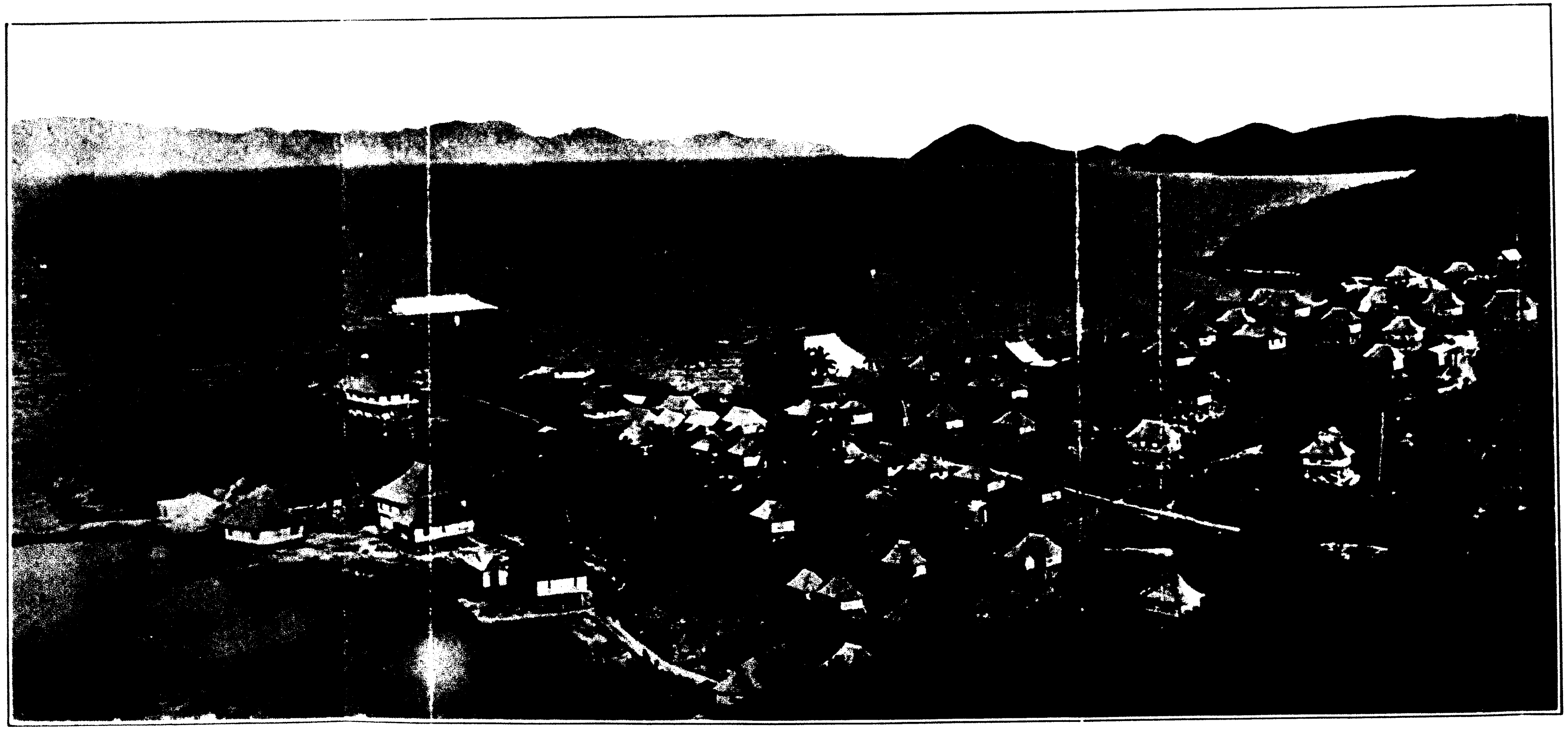

PLATE XXXII. CULION LEPER COLONY, LOOKING EAST.

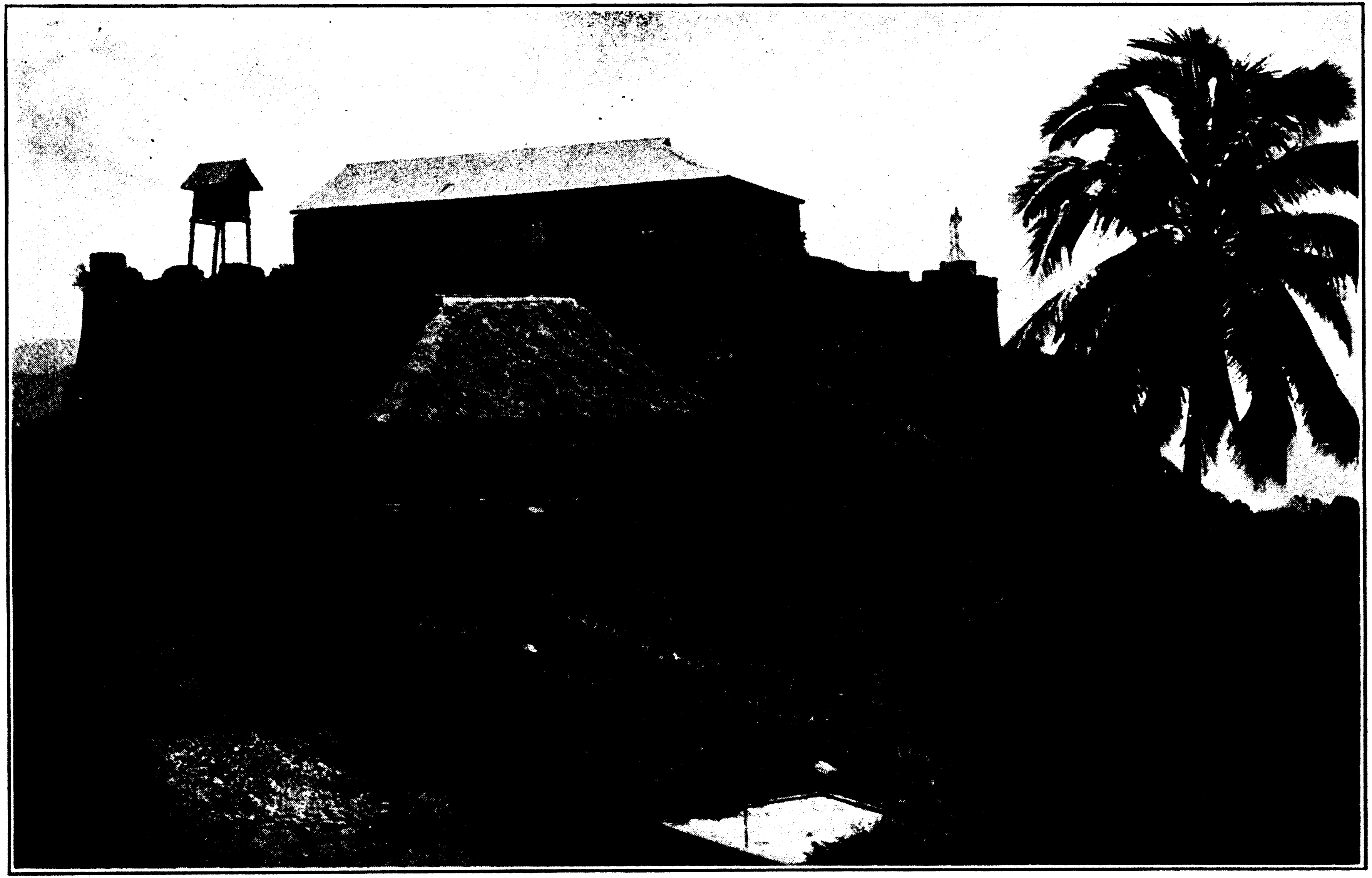

Plate XXXIII. VIEW OF CHURCH, CULION LEPER COLONY, LOOKING TOWARD EAST.

Plate XXXIV. HOSPITAL, CULION LEFER COLONY.

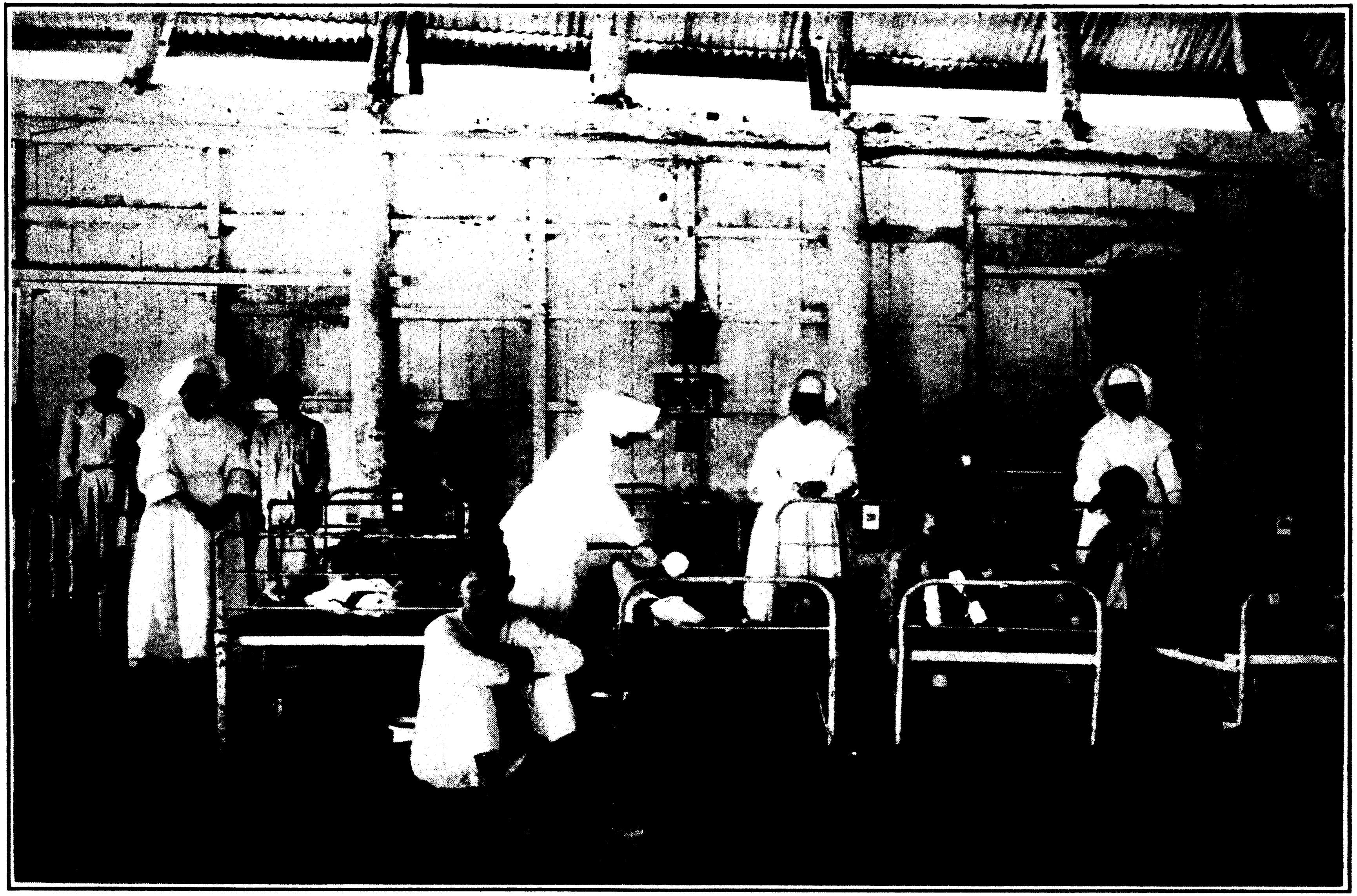

Plate XXXV. INTERIOR VIEW OF HOSPITAL, CULION LEPER COLONY.

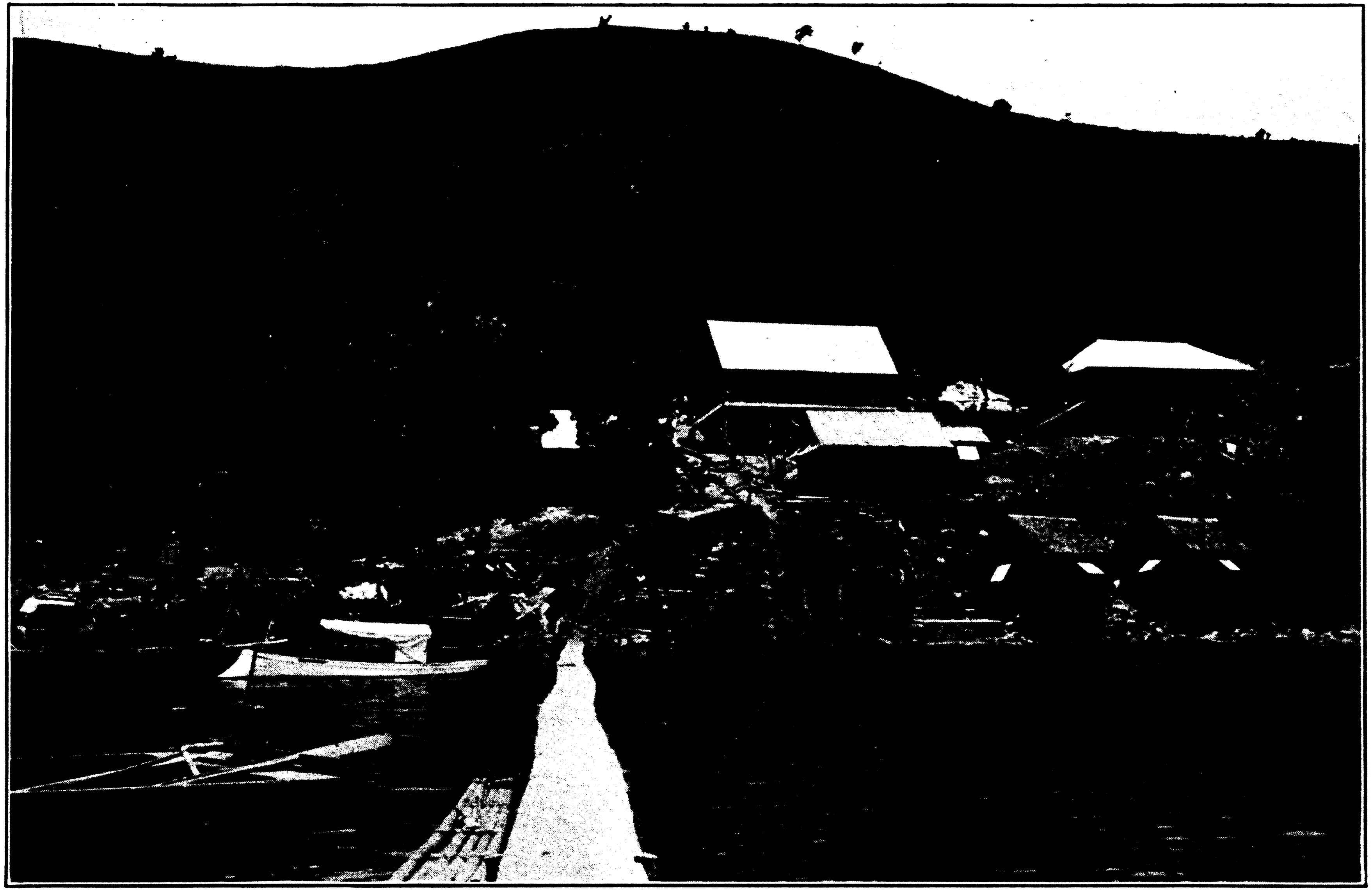

PLATE XXXVI. HOUSES OF NONLEPROUS EMPLOYEES IN COURSE OF CONSTRUCTION, CULION LEPER COLONY.

Plate XXXVII. CHAPLAINS, CULION LEPER COLONY.

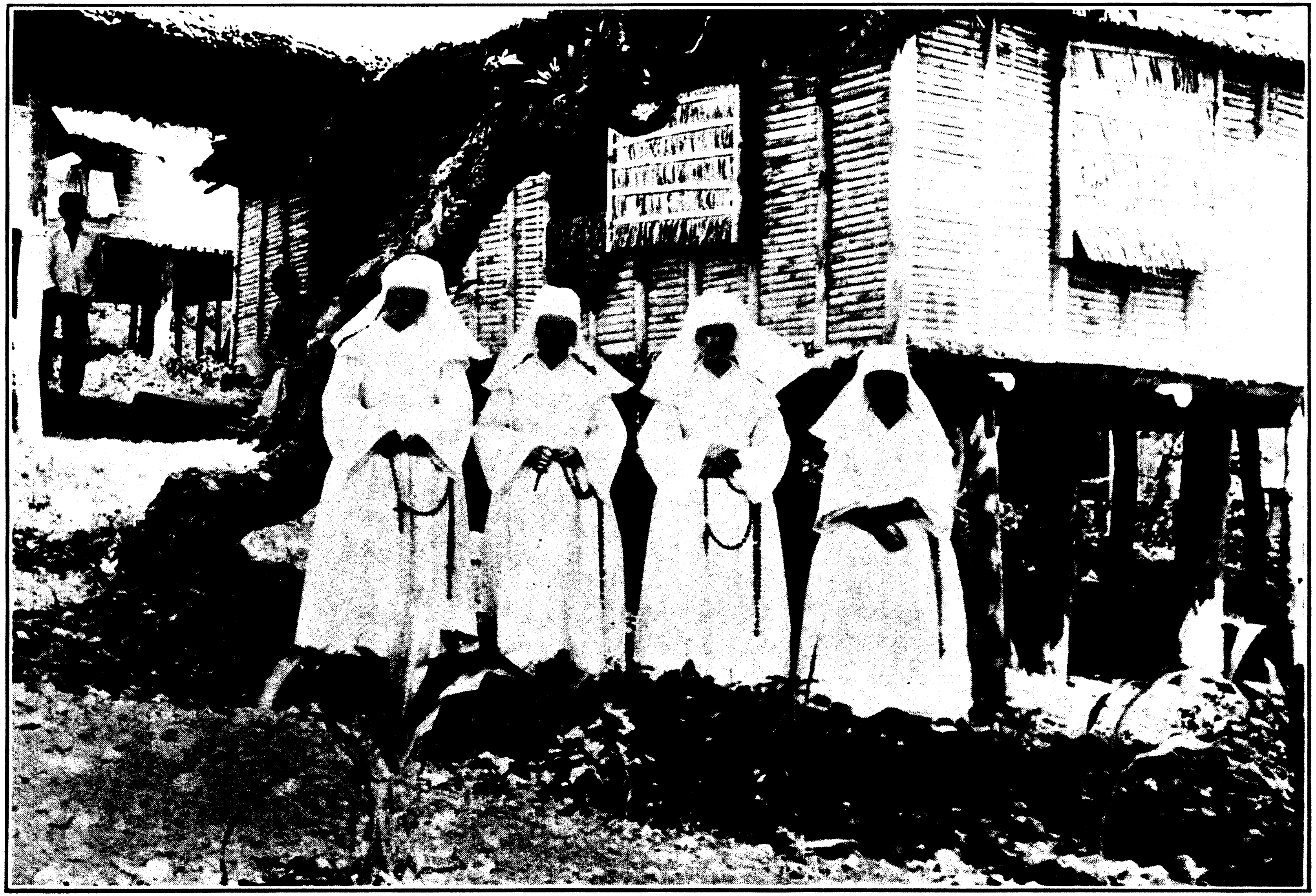

Plate XXXVIII. SISTERS OF SAINT PAUL DE CHARTRES ON DUTY AT CULION LEPER COLONY.

Plate XXXIX. PRESIDENTE AND CONSEJALES. CULION LEPER COLONY.

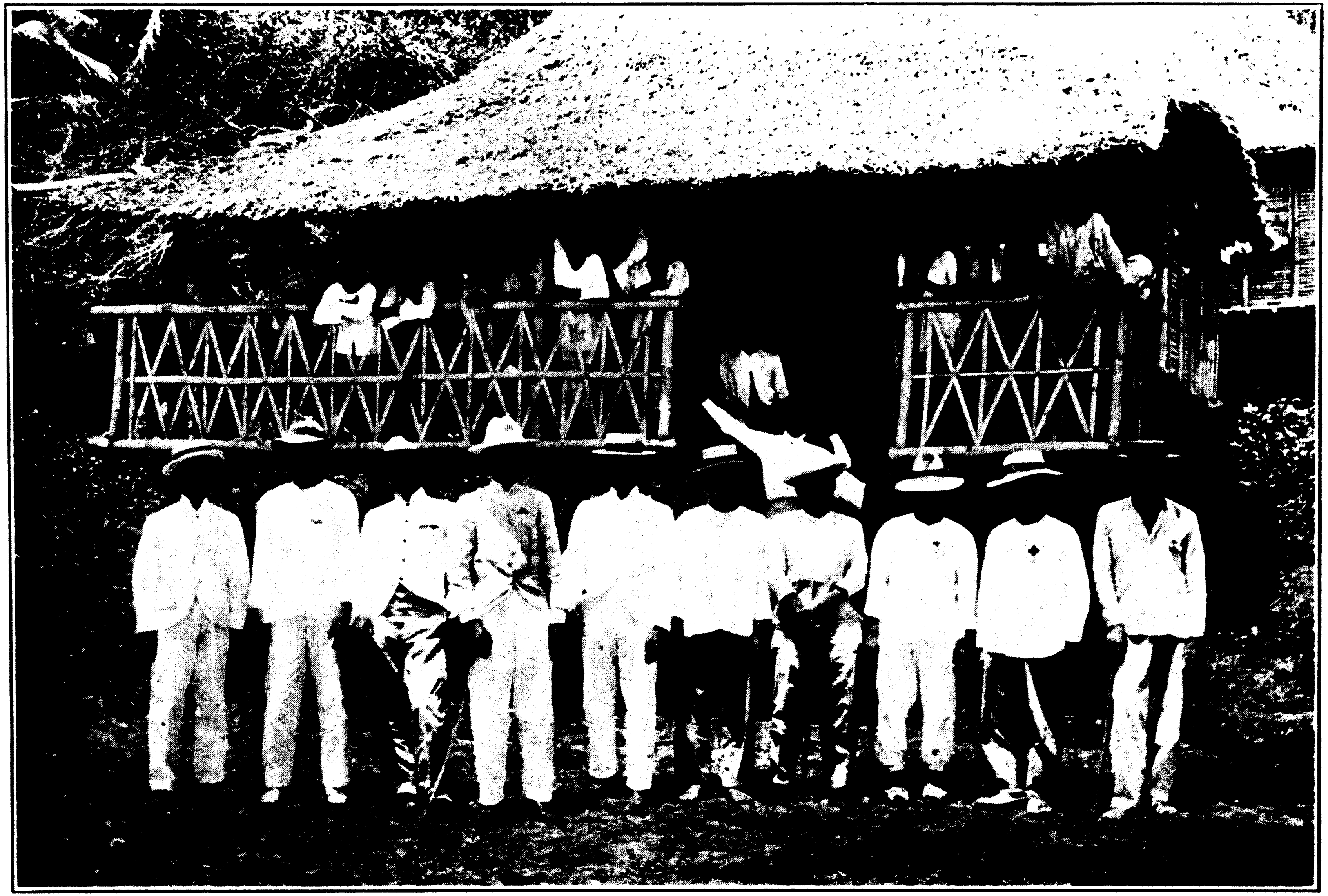

PLATE XL. POLICE FORCE (IN FOREGROUND). CULION LEPER COLONY.

PLATE XLI. AMUSEMENT HALL, CULION LEPER COLONY.

Plate XLII. BAND, CULION LEPER COLONY.